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SUPREME COURT OF THE UNITED STATES.

No. 172.

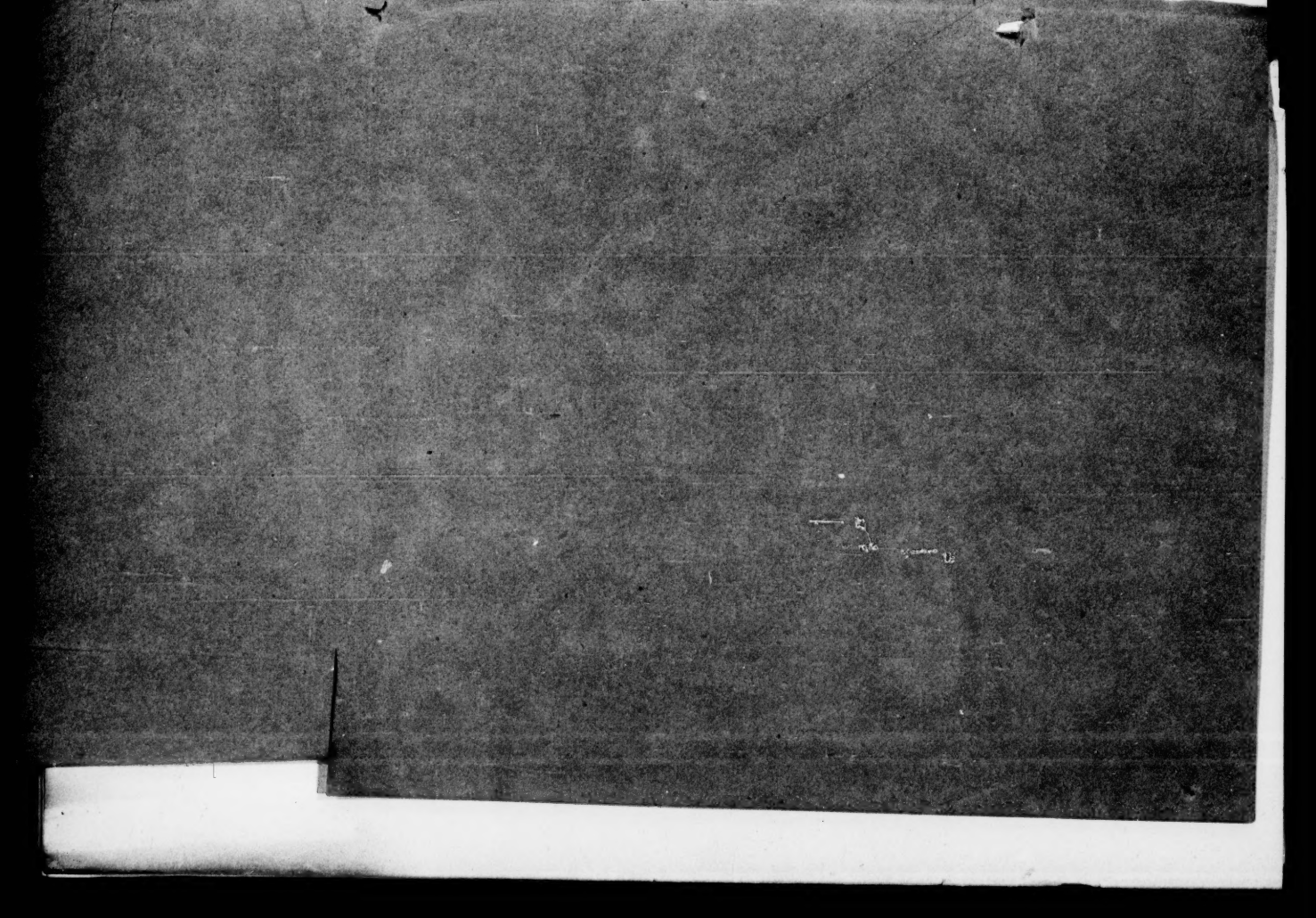
THOMAS R. HARTELL AND JOHN LETCHWORTH, APPELLANTS,

vs.

BENJAMIN C. TILGHMAN.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

FILED SEPTEMBER 30, 1876.



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1 Pleas and proceedings before the honorable the judges of the circuit court of the United States in and for the eastern district of Pennsylvania, and in the third circuit, of October session, 1874, No 41.

It is thus contained:

Be it remembered that heretofore, to wit, on the thirteenth day of October, in the year of our Lord one thousand eight hundred and
2 seventy-four, Benjamin C. Tilghman, by his solicitor George Harding, esquire, comes into our said court here and files of record his bill of complaint against Thomas R. Hartell and John Letchworth in words and of the tenor following, to wit:

3 Circuit court of the United States in and for the eastern district of Pennsylvania. In equity.

BENJAMIN C. TILGHMAN
vs.
THOMAS R. HARTELL AND JOHN LETCHWORTH.

To the honorable the judges of the circuit court of the United States in and for the eastern district of Pennsylvania:

Benjamin C. Tilghman, of Philadelphia, in the State of Pennsylvania, and a citizen of said State, brings this bill against Thomas R. Hartell and John Letchworth, a firm having their place of business at No. 15 North Fifth street, Philadelphia, and citizens of the eastern district of Pennsylvania.

And thereupon your orator complains and says, that heretofore and before the first day of March, 1870, your orator was the true, original, and first inventor of a certain new and useful improvement in cutting and engraving stone, metal, glass, and other hard substances, not known or used before, and not in public use or on sale with his
4 consent or allowance for more than two years prior to his application for a patent therefor.

And your orator further shows unto your honors that your orator, so being the inventor of said improvement, and being a citizen of the United States aforesaid, made application to the proper department of the Government of the United States for letters-patent in accordance with the then existing acts of Congress, and having duly complied in all respects with the conditions and requisitions of said acts, on the eighteenth day of October, 1870, letters-patent of the United States, numbered 108408, signed, sealed, and executed in due form of law, for the said invention or discovery, were issued to your orator, whereby there were secured to him, his heirs, executors, administrators, or assigns for the term of seventeen years from the eighteenth day of October, 1870, the full and exclusive right of making, using, and vending the said invention or discovery throughout the United States and the Territories thereof. And your orator further shows that a specification of the aforesaid improvements was given in the schedule to the said letters-patent, accompanied by certain drawings, referred to in said schedule and forming part of said letters-patent, and the said specification thereto annexed (which, or an exemplified copy of which, your orator will produce as your honors may direct), were duly recorded in the Patent Office, a copy of which is hereto annexed, marked "A."

The invention of your orator consists in a process, in which certain devices, well known, but not patented, were used to carry it out. It had been the practice of your orator to put up such fixtures as were required,

at the premises of the parties desiring to obtain a license, and to then demonstrate its practicability, and instruct the parties in its use, with the previous understanding, however, that if successful and satisfactory, the party should then repay the expenses incurred by your orator and also execute the regular form of license contract adopted by your orator.

A copy of the form adopted by your orator at the time is hereto annexed, marked "B."

And your orator further shows that about midsummer, 1873, M'r John Letchworth, one of the defendants, applied to R. A. Tilghman, as agent of your orator, to obtain a license to use the sand-blast process (by which name the above mentioned patent is commonly known) for flat glass and globes. The nature of the license and agreement issued by your orator, the mode of accounting, and of changing the license rate was then explained to him, and he then agreed to execute a regular license and agreement, the same as issued to other licensees in the same business. On the faith of that agreement, machinery was supplied and erected at defendants' works by your orator, and demand soon after made by your orator's business agent, Gorham Blake, of Boston, for the repayment of the cost of said machinery, and for the execution of the regular license and argeement; after much delay the cost of said machinery was repaid to your orator, but the defendants, after many promises and frivolous excuses for delay, did, on the 25th day of April, 1874, positively refuse to execute the license and agreement, being the same issued to others in the same business.

Defendants were then and there served with notice to desist from using said patent process.

Several monthly payments of royalty had previously been received from the defendants on the faith of their promises to execute a regular license and agreement; but since their refusal so to do, the defendants have continued to send monthly reports of work done and checks in payment therefor to the agent of your orator, as if in payment under a license, but said checks were returned to them by him as they had no authority to use said process.

6 The right has been reserved to your orator and his agents in all licenses executed by him to visit and inspect machines operating his said process; on the 26th day of June, 1874, R. A. Tilghman and Gorham Blake, the agents of your orator, formally applied for and were refused admission at both factories of the defendants, the foremen, in each case, asserting the express directions of M'r Hartell not to admit either of them.

And your orator further shows that your orator has extensively applied the said improvement to practical use, and has been, and, but for the infringement hereinafter complained of, would still be, in the undisturbed possession, use, and enjoyment of the exclusive privileges secured by the said letters patent, and in receipt of the profits of the same.

And your orator further shows unto your honors, as he is informed and believes, that the said defendants hereinafter named, well knowing all the facts hereinbefore set forth, are now using the said patented improvement the exclusive right and privilege to make, use, and vend which throughout the United States and the Territories thereof is thus by law vested in your orator.

And so it is, may it please your honors, that the said defendants, as your orator is informed and believes, without the license of your orator, against his will and in violation of his rights, intend to continue still to

make and use the said improvement within the eastern district of Pennsylvania, all of which is in violation of the said letters-patent.

To the end, therefore, that the defendants may, if they can, show reason why your orator should not have the relief hereby prayed, and that they may make a full disclosure and discovery of all the matters aforesaid, and upon their several corporal oaths, and according to the best and utmost of their knowledge, remembrance, information, and belief, full, true, direct, and perfect answers make to such of the several
7 interrogatories hereinafter numbered and set forth as by the note hereunder written they are required to answer; that is to say:

1. Whether the said original letters-patent were granted and issued to the said B. C. Tilghman.

2. Whether a license was not tendered to them to execute, and whether they have not refused to execute the same.

3. Whether the said defendants, or either of them, and which, has at any time, and when and during what period of time, used the aforesaid patented invention or process in whole or in part, upon the principles and in the manner described in said letters-patent. Describe minutely and in detail the construction and mode of operation of the process by which they engrave upon glass.

And now, to the end that the defendant may be compelled to account for and pay over the income thus unlawfully derived from the violation of the rights of your orator as above, and be restrained from any further violation of said rights, your orator prays that your honors may grant a writ of injunction, restraining the defendant from any further construction or sale, or use in any manner, of said patented improvement, or any part thereof, in violation of the rights of your orator as aforesaid. And also that your honors, upon the entering of the decree for an infringement, as above prayed for, may proceed to assess or cause to be assessed under your direction, in addition to the profits to be accounted for by the defendant as aforesaid, the damage your orator has sustained by reason of such infringement, and that your honors may increase the actual damages so assessed to a sum equal to three times the amount of such assessment, under the circumstances of the wilful and unjust infringement by said defendant as herein set forth. And your orator prays also for a provisional or preliminary injunction, and for
8 such other relief as the equity of the case may require and to your honors may seem meet.

May it please your honors to grant unto your orator not only a writ of injunction conformable to the prayer of this bill, but also a writ of subpœna of the United States of America, directed to the said Hartell and Letchworth, and commanding them to appear and answer unto this bill of complaint, and to abide and perform such order and decree in the premises as to the court shall seem meet, and be required by the principles of equity and good conscience.

GEORGE HARDING,
Solicitor for Complainant.

The defendants are required to answer each of the foregoing interrogatories numbered, inclusive.

GEORGE HARDING,
Solicitor for Complainant.

UNITED STATES OF AMERICA,
Eastern District of Pennsylvania, ss:

Richard A. Tilghman, being duly sworn, doth depose and say that he is the attorney in fact for the complainant in the foregoing bill named,

and that the said complainant is now absent in Europe, and has been for some time; that the principal facts set forth in within bill are within this deponent's knowledge, and that so far as the statements therein contained are within his own knowledge they are true, and so far as they are derived from the information of others he verily believes them to be true. And he further says that he verily believes the said B. C. Tilghman, in said bill named, is the original, true, and first inventor of the new and useful improvement in cutting and engraving stone, metal, glass, &c., which is described in the letters-patent granted to B. C. Tilghman, October 18th, 1870, and mentioned in the foregoing bill.

9 And your deponent verily believes that the title of complainant, as set forth in said bill, is true.

R. A. TILGHMAN.

Sworn to and subscibed this 12th day of October, A. D. 1874, before me.

SAMUEL BELL,
U. S. Commissioner.

10 No. 108408.

The United States of America to all to whom these letters-patent shall come:

Whereas Benjamin C. Tilghman, of Philadelphia, P'a, has alleged that he has invented a new and useful improvement in cutting and engraving stone, metal, glass, &c., and has made oath that he is a citizen of the United States; that he verily believes he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents, praying that a patent may be issued therefor:

These are therefore to grant to the said Benjamin C. Tilghman, his executors, administrators, or assigns, for the term of seventeen years from the 18th day of October, one thousand eight hundred and seventy, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the annexed schedule, and made a part of these presents.

In testimony whereof I have hereunto caused these letters to be made patent and the seal of the Patent-Office to be hereunto affixed.

Given under my hand at the city of Washington this eigthteenth day of October, in the year of our Lord one thousand eight hundred and seventy, and of the Independence of the United States of America the ninety-fifth.

W. F. OTTO,
Acting Secretary of the Interior.

[SEAL.] SAM'L S. FISHER,
Commissioner of Patents.

Countersigned and sealed with the seal of the Patent-Office.

11 EXHIBIT A.

United States Patent-Office.

Benjamin C. Tilghman, of Philadelphia, P'a. Letters-patent No. 108408, dated October 18, 1870. Improvement in cutting and engraving stone, metal, glass, &c.

The schedule referred to in these letters-patent and making part of the same.

To all whom it may concern:

Be it known that I, Benjamin C. Tilghman, of Philadelphia, Pennsylvania, have invented an improvement in cutting, grinding, and engraving stone, metal, glass, and other hard substances; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing:

My invention consists in cutting, boring, grinding, dressing, pulverizing, and engraving stone, metal, glass, wood, and other hard or solid substances, by means of a stream of sand or grains of quartz or of other suitable material, artificially driven as projectiles rapidly against them by any suitable method of propulsion.

The means of propelling the sand which I prefer is by a rapid jet or current of steam, air, water, or other suitable gaseous or liquid medium; but any direct propelling force may be used; as, for example, the blows of the blades of a rapidly revolving fan, or the centrifugal force of a revolving drum or tube, or any other suitable machine.

12 The greater the pressure of the jet the higher will be the velocity imparted to the grains of sand and the more rapid and powerful their cutting effect upon the solid substance.

At a high velocity of impact the grains of sand will cut or wear away substances much harder than themselves; corundum can thus be cut with quartz sand, and quartz rock can be cut or worn away by small grains or shot of lead.

I have sometimes used iron sand composed of small globules of cast iron.

By the term "sand" in this specification I mean small grains or particles of any hard substance of any degree of fineness, of which common quartz sand is a type.

The hardest steel, chilled cast iron, or other metal can be cut or ground by a rapidly projected stream of quartz sand.

Articles of cast or wrought metal may have their surfaces thus smoothed and cleaned from slag, scale, or other incrustation.

The surfaces of wrought stone in buildings or elsewhere can thus be cleaned and refreshed.

By means of stencil-plates, screens, or suitable covering substances, letters or designs can thus be cut or engraved upon hard substances.

By varying the shape, number, and direction of the projected streams of sand, and by giving to them and to the articles treated suitable movements by means of lathes, planing or drilling machines, or other known mechanical devices, cuts or holes may be made of any shape or size.

When sand of a brittle nature, such as quartz or emery, is very rapidly projected against a hard material, the grains are broken by the shock into fine powder, and the process may thus be used as a method of pulverization.

Where a jet of water under heavy pressure is used, as in hy-

13 draulic mining, the addition of sand will cause it to cut away hard and close-grained substances upon which the water alone would have little or no effect.

Pebbles or stones of size and weight as great as can be rapidly projected by the jet of water used will have a battering, penetrating, and dislocating effect, which will assist the disintegrating and scouring action of the water.

Heretofore, when sand has been used as a grinding or cutting materiall, it has been applied between solid substances, moved over each other under heavy pressure, so as to make a series of scratches, as in the ordinary cutting of stone and glass, or else in a solidified form, as in a grindstone or sand-paper, or sometimes in a semi-fluid state, as when a body is rubbed or moved in a mass of sand.

The peculiar feature of my invention, which distinguishes it from other methods of cutting and grinding, is that each grain of sand acts, by its own velocity and momentum, like a bullet or projectile, and pulverizes, cuts, or indents the object it strikes.

From this peculiarity of action, it results that some substances, which, though comparatively soft, are also tough, or malleable, or elastic, and not pulverizable by a blow, such as copper, lead, paper, wood, or caoutchouc, for example, are less rapidly cut and ground by the sand-blast, particularly at moderate velocities, than some much harder substances which are brittle or pulverizable, such as stone, glass, or porcelain.

Another peculiarity of the sand-blast is that the grinding or cutting action takes place upon irregular surfaces, cavities, corners, and recesses hardly accessible to ordinary methods.

I believe that steam will generally be found the most convenient impelling jet, particularly for high velocities, but in some localities air or water may be cheaper.

I have used steam of all pressures, sometimes exceeding four hundred pounds per square inch, and have found its efficiency to increase rapidly with the pressure.

14 I believe that when it is desired to cut or grind hard substances rapidly, it will be advantageous to use steam of as high pressure as can practically be made available, but each operator can choose the pressure most convenient for his circumstances and the kind of work he wishes to do.

The following is a method of carrying my invention into effect, taking for example the cutting of stone by means of quartz sand, projected by a jet of steam of about three hundred pounds pressure per square inch:

The sand is fed into a funnel, *a*, which is connected by a flexible tube and turning-joint, *b*, with an iron or steel tube, *c c*, of any convenient length, and of about 17-100 of an inch bore, which I call the sand-tube.

This tube is firmly secured exactly in the centre of another iron or steel tube, *d d*, of about one-half inch bore, which I call the steam-tube.

The interval between the tubes is closed at one end, *e*.

At their other ends both tubes are brought to the same length, but the bore of the outer tube *d* is here contracted to a diameter of 26-100 of an inch, for about one-quarter of an inch from its end, and about half an inch of the end of the inner tube *c* is reduced to a cylinder of 23-100 of an inch external diameter, so as to leave between the ends of the tubes a smooth regular annular opening, *m m*, of about 15-1000 of an inch in width, continuing of this size for about a quarter of an inch in length, and then enlarging gradually to the full diameter of the steam-tube.

This annular opening *m m* forms the passage for the escape of the steam.

The steam-tube *d* is connected with the steam-boiler by the holes *f f*, the T-piece *g*, the stuffing-boxes *h h h*, and the jointed pipes *o o o*, so as to allow it to be rotated and moved in any direction.

An iron or steel tube, *i i*, which I call the nozzle-tube, about 38-100 of an inch in bore and six inches long, is fastened on the end of the steam-tube.

The end of the sand-tube *c* is accurately adjusted, and firmly fastened exactly in the centre of the steam-tube *d*, so that the annular opening is everywhere of the same width, and the nozzle-tube is adjusted so that its axis or central line coincides perfectly with the axis of the steam jet issuing from the annular opening.

The perfect accuracy of these adjustments is important.

The bore of the nozzle-tube is adjusted, by trial, to the size and pressure of the steam jet, so as to produce the amount of suction desired in the sand-tube.

For the sake of brevity, the stream of sand impelled by the jet of steam, air, &c., will herein be called "the sand-blast," and the system of tubes for producing it will be called "the blast-pipe."

The sand used should be sifted of even size, and should be clean, hard, sharp, and dry, so as to run regularly through a small hole without clogging.

I have found sand which will pass through a sieve of forty wires per inch, and not through one of forty-eight wires, to cut faster than sand which will pass through a sieve of twenty wires, and not through one of thirty wires to an inch.

The steam should be dry and free from condensed water. When used at a distance from the boiler, a steam separator or purger should be used, such as is well known to engineers, and the pipes kept well wrapped.

The operation is as follows:

The steam is turned on, and issues with great velocity from the annular opening *m m*. This creates a suction and current of air in the sand-tube *c c*.

A sliding valve in the bottom of the sand-box is now opened, and lets a stream of sand of from one to two pints per minute fall into the funnel *a*, whence it is carried by the current of air through the sand-tube, and is sucked into the jet of steam and driven by it through the nozzle-tube, acquiring a high velocity, and finally strikes against the stone to be cut, which is held about an inch distant from the end of the nozzle.

The shattered fragments of the sand and stone, partly in very fine powder, and the waste steam, escape sidewise and backward. A dull red light may be seen at the point of impact of the sand and stone.

If the sand-blast is kept directed steadily at the same spot, a hole will gradually be cut, the diameter of which at the surface is greater than that of the steam-jet, but which grows smaller and becomes conical as it penetrates deeper into the stone.

I have observed that this tendency to form a conical hole increases with the hardness of the substance operated on and that it diminishes as the pressure and velocity of the blast is increased. To make a hole or cut with parallel sides, I have found that the blast should be slightly inclined toward each side alternately. The angle of inclination will vary with the hardness of the stone and the pressure of the jet used.

In cutting granite with a steam-jet of about three hundred pounds

pressure per square inch, I have found an inclination of about one in nine to make a parallel cut. Operating on rather soft burnt brick with the same jet without inclination, the sides of the cut were almost parallel.

Sufficient space must always be allowed for the escape of the current of waste steam and sand, and, consequently, when a deep hole is to be cut, its diameter must be great enough to admit this escape around the blast-pipe when it is advanced to near the bottom of the hole.

In cutting holes, I have found it convenient to use a blast-pipe, bent at a point about two inches back of the annular jet to an angle of about one in nine, and to use a nozzle-tube only about two inches long.

17 The blast-pipe, being rotated and directed successively to all parts, a hole of any shape can be cut with parallel sides, or the sides may be undercut, so that the hole will be of greater diameter at the bottom than at the top. Chambers for blasting-powder may thus be made.

In cutting long, narrow grooves I have found it convenient to arrange parallel guide-plates of iron or steel, *n n*, about one and a half inches wide, and projecting about three inches from the end of the nozzle-tube, leaving between the plates a space about equal to the bore of the nozzle-tube. The effect of these plates is to prevent the sand-blast from diverging, and to make the edges and surface of the groove more even and regular.

In dressing stone so as to produce a flat surface, I have found it convenient to cut first a narrow groove about half an inch deep, and then to break or split off the overhanging edge, and then continue or deepen the groove and break off the new overhanging edge, and so on.

When the stone varies in hardness in different spots, the workman must keep the blast directed upon the hard spots until he sees that they are worn down to the desired level, and must pass it quickly over soft spots as soon as he sees they are sufficiently cut.

As most kinds of stone contain frequent alternations of hard and soft spots, constant care and attention must be given by the operator to obtain an even surface.

A sheet-iron guard or shield is arranged to protect the face and eyes of the workman from the rebounding sand, and a narrow slit in it enables him to watch and regulate the progress of the operation.

Suitable movements are to be given to the blast-pipe, or to the stone, or to both, by hand or by any suitable machinery, so as to produce the shape of cut desired.

If the axis of the nozzle-tube and guide-plates does not coincide accurately with that of the steam-jet, they will be rapidly cut away by the sand-blast.

18 If any obstruction from dirt or scale chokes up one side of the annular opening of the steam-jet, the sand-blast will be distorted sidewise, and will rapidly cut away the nozzle-tube. I have found the above-described method of introducing the sand into the impelling-jet by means of the suction produced by the jet itself, to give good results, but it is to be understood that I do not confine myself thereto. I am aware that part of the pressure of the jet is thereby lost, but I think the practical convenience counterbalances this loss. I have sometimes used a strong, close vessel to contain the sand, and introduced a current of the steam, air, or water under pressure above the sand, and then, by suitably regulating the cock on the pipe leading to the top of the close vessel, and the cock on the pipe leading to the impelling-jet, a current

of the fluid can be made to pass through the close vessel, and carry with it any desired quantity of sand into the impelling-jet.

When steam is used in this manner, the close vessel must be kept hot enough to avoid the condensation of water among the sand, which would prevent its running through the pipes.

A current of air forced into the close sand-box, at a pressure greater than that of the steam employed, may also be used as a means of conveying the sand into the impelling steam-jet.

I have observed that the quantity of stone cut by a given sand-blast in a given time is much greater when ample space for free escape is afforded to the sand and steam after they have struck the stone, than when the space for escape is narrow and confined.

When a rapid lateral motion is given to the blast-pipe or to the stone, so that the sand is constantly striking upon a fresh surface, a much greater cutting-effect is produced than when the blast is kept pointed at one spot.

19 In the latter case it appears that the sand and steam rebounding back from the stone interfere considerably with the fresh sand which is being projected toward the stone. This interfering effect is particularly evident when a hole is cut but little larger than the diameter of the sand-blast.

I have noticed that when the sand-blast is held at four or five inches distance from a stone, a greater quantity will be cut than when the same sand-blast is held at but one inch distance. Also, that when a sand-blast is directed at an angle of from thirty to forty-five degrees with the face of a stone, a greater quantity will be cut than when the same sand-blast, at the same distance (one inch), is directed at an angle of ninety degrees with the face of the stone. The divergence of the sand-blast spreading it over a wider surface of the stone, and also giving it more room to escape, and thus to avoid interference with the on-coming sand, appears to be the explanation in these cases.

But I have found that in cutting a narrow groove, more progress is made by keeping the blast-pipe directed square at the stone, and keeping the stone as close to the guide-plates as its shape will permit; for although the gross quantity of stone cut away may be less than at a greater distance, the effect is more concentrated and confined to the desired spot and direction.

The quantity of sand to be used with a given steam-jet may be considerably varied, according to the object desired. When a soft stone is to be cut over a wide surface, so that a free sideway-escape can be given, a quantity of sand two or three times as great as above described may be used; but where a hard stone is to be cut in a narrow groove, a small feed of sand produces a better result.

For purposes where only a small quantity of material is to be cut or ground away from the surface of a hard substance, and where only a moderate velocity of the sand is required, I have found the current of air produced by the ordinary rotary fan to be convenient.

I have used this method for grinding or depolishing glass, china,
20 or pottery, either on entire surfaces or on surfaces partially covered and protected so as to produce an engraving of letters, ornaments, or designs.

In engraving designs, air is more convenient than steam as an impelling-jet, in this respect, that the sand keeps dry, and rebounds, leaving the pattern clear, while with steam the sand becomes damp, and is apt to adhere to and clog the fine lines and corners.

The sand, being fed into the fan, is carried along by the current of

air in a tube or close trunk, and strikes upon the glass, which is held or moved opposite the mouth of the trunk, and cuts, grinds, or stars its surface.

One arrangement which I have found convenient for flat glass, is to cause the air-current from the fan to descend in a narrow vertical tube of a cross-section about three feet long by one inch wide, into the top of which the sand is evenly introduced by numerous small pipes, at the rate of about twenty cubic inches per minute for each square inch of cross-section. A traveling apron carries the sheets of glass gradually and regularly beneath the sand blast, at about one inch distance.

The finer the sand used, and the less the pressure of the blast, the finer is the grain of the depolished surface. Also, the finer the sand used, the more weak and delicate may be the texture of the covering substance used to produce the design. Good results have been obtained with designs cut in a layer of wax, and with paper or lace pressed close to the glass, and using sand which passed through a sieve of fifty wires per inch, and an air-blast of the pressure of about one inch of water. With sand reduced to very fine powder, and an air-blast of a pressure of eight or ten inches of water, a very delicate depolishing of the surface of glass has been produced.

Numerous processes are known and used in the arts for producing, painting, or transferring designs on surfaces; any of these processes,
21 by which a design can be produced or transferred in a sufficiently tough and resistant medium, may be used to prepare a surface for being engraved by the sand-blast.

Many natural objects, such as plants, leaves, insects, etc., which can be fastened flat upon a surface, have sufficient strength and resistance to a blast of fine sand to admit of their outline being thus engraved.

Glass, colored by a thin stratum of colored glass on one surface, may be ornamented by designs cut or ground through its colored stratum.

Designs engraved by the sand-blast to a sufficient depth, either in relief or intaglio, on a smooth surface—slate or glass for example—can be reproduced by known processes of printing.

When the sand-blast, at moderate velocities, is directed upon a metalic surface, it removes but little of the metal, but the grains of sand make innumerable small indentations of the surface, and produce a frosted, dull mat or dead appearance. By using suitable stencil plates, or covering substances, designs or devices can thus be engraved on metalic surfaces.

If desired, the sand may be propelled by a current of air produced by suction, or a partial vacuum, made in any convenient manner, as by a fan or steam-jet, or any other known machine; or the sand may be propelled by a mixed current of steam and air, produced by a steam-jet in the ordinary manner.

I have produced some cutting and grinding effects by sand impelled by the force of gravity. A stream of sand fed into the top of a high vertical tube at first falls slowly, but after the air in the tube is set in motion the sand gradually falls more rapidly, and can finally acquire velocity sufficient to grind or depolish glass.

I have described above several arrangements for projecting the sand with the requisite velocity, but I do not mean to confine myself thereto.
Any method or arrangement may be used by which sufficient
22 velocity can be artificially given to the sand to enable it to cut or grind the object.

What I claim as my invention, and desire to secure by letters patent, is—

1. The cutting, boring, grinding, dressing, engraving, and pulverizing of stone, metal, glass, pottery, wood, and other hard or solid substances, by sand used as a projectile, when the requisite velocity has been artificially given to it by any suitable means.

2. The artificial combination of a jet or current of steam, air, water, or other suitable gaseous or liquid medium, with a stream of sand, as a means of giving velocity to the sand, when the sand is used as a projectile as a means of cutting, boring, grinding, dressing, engraving, and pulverizing stone, metal, glass, pottery, wood, and other hard or solid substances.

3. The combination of a rotary fan, centrifugal machines, and other machines capable of giving direct mechanical impulse, with a stream of sand, as a means of giving velocity thereto, when the sand is used as a projectile as a means of cutting, boring, grinding, dressing, engraving, and pulverizing stone, metal, glass, pottery, wood, and other hard or solid substances.

4. As a new manufacture, articles of stone, metal, glass, pottery, wood, and other hard or solid substances, which have been cut, bored, ground, dressed, engraved, or pulverized by sand used as a projectile, when the requisite velocity has been artificially given to the sand by any suitable means.

5. As a new manufacture, articles of stone, metal, glass, pottery, wood, and other hard or solid substances, which have been cut, bored, ground, dressed, engraved, or pulverized by sand used as a projectile, to which the requisite velocity has been artificially given by a jet or current of steam, air, water, or other suitable gaseous or liquid medium.

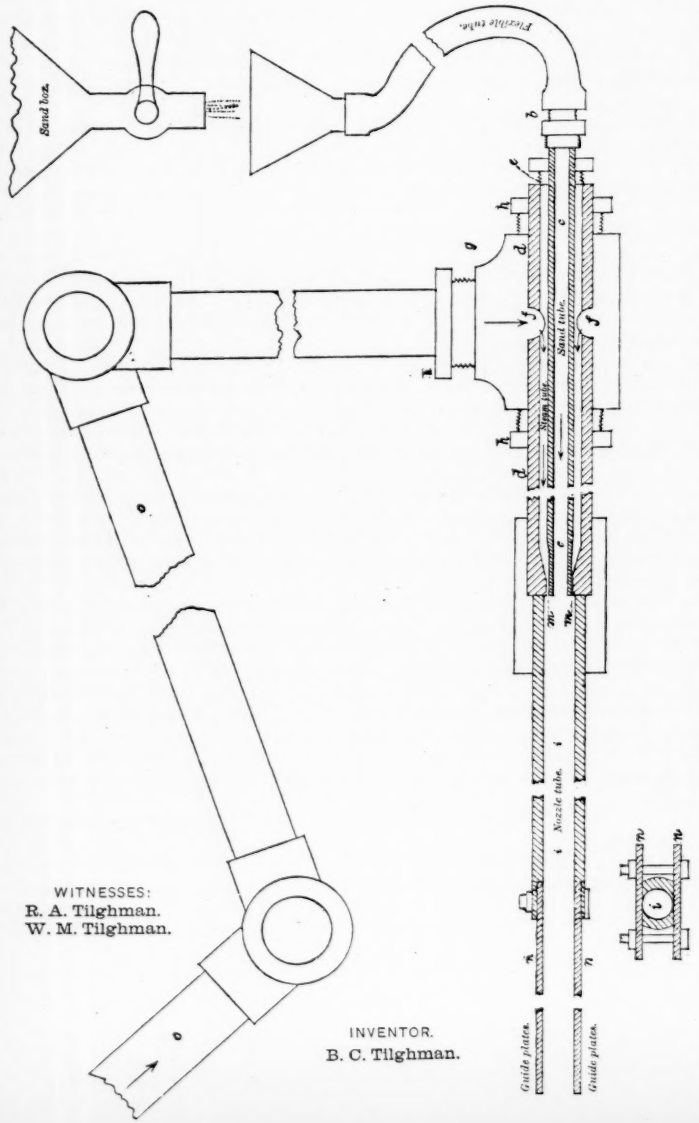
23 6. As a new manufacture, articles of stone, metal, glass, pottery, wood, and other hard or solid substances, which have been cut, bored, ground, dressed, engraved, or pulverized by sand used as a projectile, to which the requisite velocity has been given by a rotary fan, centrifugal machine or other machine capable of giving direct mechanical impulse.

7. When a jet or current of steam, air, water or any other suitable gaseous or liquid medium is employed to give velocity to sand used as a projectile as a means of cutting, boring, grinding, dressing, engraving, or pulverizing stone, metal, glass, pottery, wood, and other hard or solid substances, the use of the following devices for introducing the sand into the jet of steam, air, water, &c.: First, the suction produced by the jet of steam, air, water, &c.; second, a strong, close vessel, or sand-box, into which the pressure of the steam, air, water, &c., is introduced, and through which, when desired, a current of it may be made to pass.

B. C. TILGHMAN.

Witness:
R. A. TILGHMAN,
W. M. TILGHMAN.

B. C. Tilghman's Improvement in Cutting Stone, &c.
Patented Oct. 18, 1870.
108408.



WITNESSES:
R. A. Tilghman.
W. M. Tilghman.

INVENTOR.
B. C. Tilghman.

25

EXHIBIT B.

Circuit court of the United States, Eastern district of Penn'a.

Gorham Blake, being duly sworn, doth depose and say: That he resides in Boston, and that he is the business agent of B. C. Tilghman, acting under the direction of R. A. Tilghman, his attorney in fact. That in August, 1873, M'r Letchworth, of the defendants' firm, met this deponent in the city of New York, at the factory of one of Tilghman's licensees, and inquired what terms the sand-blast could be introduced into the defendants' factory, and as to the cost of apparatus to work the patented sand-blast process of Tilghman; this deponent explained to him that the devices to carry out the process could be gotten up, and the process worked in defendants' factory, if they would agree after a satisfactory trial thereof to pay the cost of such devices, and execute M'r Tilghman's usual license contract, the nature of which was fully explained to defendant at that time by deponent.

Subsequently, M'r R. A. Tilghman directed this deponent to prepare and send the apparatus to the defendants' factory, which deponent did. The apparatus was erected and the process introduced at defendants' works by a workman of this deponent. This deponent then called and saw the process worked successfully at defendants' works, in November, 1873; the defendants expressed themselves satisfied with it. Deponent then sent the bill for the apparatus and requested payment therefor, and asked them to execute the regular license contract. They post-

26 poned the payment for the apparatus for some time, until April 3d, 1874. At the time of paying for the apparatus M'r Hartell promised to send the license executed by the firm before the ensuing Saturday. He did not forward it. As early as December, 1873, defendants sent an account for royalty and check therefor, which was accepted by this deponent in the faith of their complying with their agreement and oft-repeated promise to take a license. The defendants paid their usual royalties down to the end of March, 1874, which were all in like manner accepted. This deponent, on the 25th of April, 1874, called on defendants with M'r R. A. Tilghman and tendered a regular license agreement, and demanded its execution by defendants.

M'r Hartell, one of the defendants, was present and excused himself from signing it then, and finally at that interview refused positively to sign it. This deponent then served on defendants a written notice to desist from further use of Tilghman's patent. Defendants have, since April, 1874, forwarded returns to deponent each month, which this deponent has refused to recognize, or receive royalty therefor; copies of returns made by the defendants, so far as were accepted by this deponent as aforesaid, are hereto annexed, marked X, and the returns which this deponent has refused to recognize are hereto annexed, marked Y. Copies of letters sent to defendant are hereto annexed, marked Z.

GORHAM BLAKE.

Sworn and subscribed to before me this twelfth day of October, A. D. 1874.

SAMUEL BELL,
U. S. Commissioner.

27 EXHIBIT B.

License No. 21.

This license and agreement, made the first day of December, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, of the first part, and Hartell & Letchworth of Philadelphia, Pa., of the second part, witnesseth:

That the party of the first part, in consideration of one dollar to him paid by the said party of the second part—the receipt of which is hereby acknowledged—and of the covenants hereinafter set forth, doth license the party of the second part to use the process and invention called the "sand-blast process," as described in the letters patent of United States, granted to said B. C. Tilghman, on the 8th day of October, A. D. 1870, and also any improvements thereof, for which letters patent may be obtained by said Tilghman, or to which he may acquire title as assignee or licensee.

This license is granted upon the following terms and conditions, which the licensee covenants to keep and perform:

First. The said licensee hereby agrees to keep a detailed account, in a book provided by the licensor, of all work done by him, or by any other person for him, or by the use in any way of the said "sand-blast process"; which account shall specify the amount done each day on each variety of work, specified in schedules to be furnished to said licensee by the licensor. And within the first five days of each month, said licensee agrees to render to the licensor, his successor or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the licensor, his successor or assigns, in cash, for the same, according to the rates of license in force during the month when the work is done. And whenever required by the licensor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said licensee, and to have free access at all times to the premises where the process is operated, for the purpose of verifying the returns aforesaid.

Second. The said licensee hereby agrees that he will not in any way contest the validity of any of the patents he is hereby licensed to use, or the validity of the title of the said licensor, or of his successor, legal representatives, or assigns, to said patents or any of them.

Third. This license shall not be assignable by the licensee.

Fourth. The said licensee, is, by this license, authorized to use the process hereby licensed only in flat glass, globes, and boring glass and grinding zinc.

Fifth. It is hereby agreed by the parties aforesaid that the rates of license shall be the same for all licensees; that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished at any time by the licensor giving written notice to all the licensees by mail, as hereinafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the licensor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the licensee before the first of July of the year preceding. And the deposit of said schedule in the post-office in Boston, addressed to the licensee at his post office address, shall be held to be a delivery thereof to said licensee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased

for said year, but may be diminished at any time by the licensor, as above mentioned.

Sixth. In case the licensee shall fail to keep and perform any of the terms and conditions of this license, the licensor, his assigns and legal representatives, may terminate and cancel the same by giving to the licensee written notice of his election so to do.

Seventh. This license shall continue (provided the licensee observes all the terms and conditions thereof) during the full term of all the letters patent aforesaid, held and to be held by the licensor, and all extensions and renewals thereof.

In witness whereof the parties have hereunto set their hands the day and year aforesaid.

(Indorsed:) Tilghman's sand-blast. License and agreement. Hartell & Letchworth, Philadelphia.

28 EXHIBIT Z.

BOSTON, *March 4th*, 1874.

I would respectfully call your attention to the enclosed bill for machines, &c., and would feel obliged to you for an early remittance; also the license and agreement signed, one of which I will return to you.

GORHAM BLAKE.

BOSTON, *March 25th*, 1874.

I herewith enclose to you copy of schedule of royalties; also license and agreement as signed by all licensees. Will you please inform me as soon as your M'r Letchworth returns, and send remittance for amount on bill at earliest convenience.

GORHAM BLAKE.

PHILADELPHIA, *April 3d*, 1874.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: I have supplied you with flat glass, globe, and boring sand-blast machines to your order, which you have been running many months. The bill for same you have declined to pay. I have also sent you a license and agreement, such as is signed by other licensees, and which we require you to sign if you desire to use the sand-blast process.

I have called on you several times for a settlement and your signature to the license, which you also declined. I will wait upon you to-morrow morning at 9½ o'clock, at your store, for a settlement in full and
29 your signature to the license. If you decline such, you will please cease to use the sand-blast process and machinery, and consider this a notification to do so.

Yours, respectfully,

GORHAM BLAKE, *Agent.*

BOSTON, *April 10th*, 1874.

Your favor enclosing check for $94.60 is received, it being amount for your account of royalty to April 1, 1874. I shall expect you to send me the two copies of license and agreement, signed by yourselves, by Saturday, the 11th inst., of one which I will return to you with my signature attached.

GORHAM BLAKE, *Agent.*

Whereupon a writ of subpœna was issued and returned on the 2d day of November, 1874, as follows, to wit:

30 UNITED STATES,
Eastern District of Pennsylvania, set:

The President of the United States to Thomas R. Hartell and John Letchworth:

For certain causes offered before the circuit court of the United States in and for the eastern district of Pennsylvania, in the third circuit, we command and strictly enjoin you that, laying all other matters aside, and notwithstanding any excuse, you personally be and appear before the judges of the said court, at a session of the same court, to be holden at Philadelphia on the first Monday of November next, to answer concerning those things which shall then and there be objected against you, and to do further and receive what the said court shall have considered in this behalf. And have you then there this writ; and this you are in no wise to omit, under the penalty of four hundred dollars.

Witness the Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at Philadelphia, this thirteenth day of October, 1874, and in the ninety-ninth year of the Independence of the said United States.

[SEAL.]

SAMUEL BELL,
Clerk of Circuit Court, U. S.

NOTE.—The defendants in this case are required to enter their appearance in the clerk's office of said court on or before the first Monday of November next, otherwise the bill may be taken pro confesso.

(Indorsed:) No. 41. Circuit court, October sess., 1874. Benjamin C. Tilghman vs. Thomas R. Hartell & John Letchworth. Subpœna in equity. Returnable on the first Monday of November next. George Harding, solicitor for complainant. Filed 2 November, 1874.

Oct. 13, 1874, at Phila., in my district, served the within writ on Tho's R. Hartell and John Letchworth by reading the same in their hearing and leaving a true and attested copy thereof with each of them.

So answers—

JAMES N. KERNS,
U. S. Marshall,
P'r JACOB S. DECKER,
Deputy.

31 And afterwards, to wit, on the seventh day of December, in the year last aforesaid, the said defendants, by M. Dan'l Connolly, esquire, their solicitor, come into our said court here and file their plea and answer, in the words and tenor following, to wit:

32 *Plea and answer.*

In the circuit court of the United States for the eastern district of Pennsylvania. In equity. Oct. t., 1874.

BENJAMIN C. TILGHMAN
vs. } No. 41.
THOMAS R. HARTELL AND JOHN LETCHWORTH.

To the honorable the judges of the circuit court of the United States, in and for the eastern district of Pennsylvania.

These defendants, Thomas R. Hartwell and Letchworth, as to all the

discovery and relief other than and except so much of the bill as seeks a discovery—1st, whether the said original letters patent were granted and issued to the said B. C. Tilghman; 2d, whether a license was tendered to them to execute, and whether they refused to execute the same; 3d, whether the said defendant or either of them, and which, has at any time and when, and during what period of time, used the said patented invention of a process, or wholly or in part upon the principle and in the manner described in said letters patent; and 4th, describe minutely and in detail the construction and mode of operation, by which they engrave upon glass—do plead thereto, and for plea say:

That they deny all the allegations and averments of said bill, which charge that they are operating machines under complainant's patent for sand-blast without a license from him, and which charge that they ever agreed or promised to sign, execute, or accept the license which complainant alleges that he tendered to them; and on the contrary thereof they aver that they are now, and since October, 1873, have been engaged in the business of ornamenting glass upon and by machines which were furnished to them by the complainant through his agent, Gorham
33 Blake, for that express purpose, under and in pursuance of an express agreement, made by and between complainant and these defendants, which said agreement was as follows:

In the autumn of 1873, Richard A. Tilghman, the agent of complainant, proposed to John Letchworth, one of these defendants, that Hartell and Letchworth, the defendants, should go into the sand-blast business in Philadelphia, under the patent of complainant, upon the following conditions, to wit: The complainant would furnish the machines for said business, being his patented machines, and put them up at defendants' works in the city of Philadelphia, and the defendants were to operate said machines, and were to pay to complainant a certain royalty upon each article operated upon by them, which royalty would be fixed by a schedule to be furnished them by the said Gorham Blake, and were to render monthly statements or accounts to the said Gorham Blake of the business done by them, and pay him the royalty thereon according to the said schedule, and that they were to have and retain the use, custody, and control of said machines in the city of Philadelphia so long as they continued diligently to prosecute and carry on the said business and pay the said royalties as aforesaid, which said royalties were to be fixed, determined and unchangeable, and to be enumerated in the schedule to be furnished by the said Gorham Blake as aforesaid. The said proposition was accepted by these defendants, and was subsequently ratified and affirmed by the said Gorham Blake, and complainant having furnished to these defendants his said patented machines, and they having at a great outlay and expense, to wit, at not less than three thousand dollars, provided machinery and appliances auxiliary to said machines, they, these defendants, in October, A. D. 1873, commenced the sand-blast business, under and by virtue of the said agreement with and license of the complainant as aforesaid. After these defendants had commenced the said business, they received in the due and usual course of mail, from the said Gorham Blake, writing from New York, a letter enumerating the royalties to be paid by these defendants, said letter being dated October 30th, 1873, and in like manner, from
34 the same party writing from Boston, another like list or schedule, printed, of royalties, signed by him as agent, under the dates respectively of November 1st, 1873, and November 7th, 1873. These letters and schedules were accepted by these defendants as the final

performance by complainant of his part of said agreement, and as perfecting their license.

And these defendants do further aver and say that in or about the month of December, 1873, they received from the said Gorham Blake, complainant's agent, a bill for the price of said patented machines so as aforesaid furnished them by him, and for the cost of putting them up at defendants' works in Philadelphia, said bill being dated October, 1873, which bill these defendants subsequently thereto, to wit, in April, 1874, paid to the said Gorham Blake and have his receipt therefor. And these defendants plead and say that said agreement was fully and fairly made and entered into by and between them and the said complainant, acting by his said agents Richard A. Tilghman and Gorham Blake, and that it amounts to a full and complete license to defendants to use said machines and carry on said business as aforesaid. And these defendants deny that they ever made any other agreement with the complainant or his agents, or either of them, other than the one above mentioned; and they deny that the nature of the license and agreement issued by the complainant, the mode of accounting and of changing the license rate as in said bill is alleged, was ever mentioned and explained to them or either of them, except to the extent and in the manner which was agreed upon as hereinbefore recited, until March, 1874, and after they had been carrying on business under their said license for more than four months. And these defendants deny that they or that either of them, then, or at any time, did agree, as in said bill is agreed, "to execute a regular license and agreement the same as issued to other licensees in the same business." All of which these defendants aver to be the truth, and plead the same to the said bill, except such parts thereof as aforesaid.

THOMAS R. HARTELL.
JOHN LETCHWORTH.

35 I do certify that in my opinion the foregoing plea is good in law, and is not interposed for purpose of delay.

M. DAN'L CONNOLLY,
Def't's Sol'r.

STATE OF PENNSYLVANIA,
County of Philadelphia, ss:

On this 7th day of December, 1874, before me, Samuel Bell, U. S. commissioner, personally appeared, Thomas R. Hartell and John Letchworth, who being by me duly affirmed, depose and say that they have read the foregoing plea subscribed by them and know the contents thereof, and that the same is true of their own knowledge, except as to the matters therein stated on information and belief, and as to those matters they believe it to be true, and that said plea is not interposed for the purpose of delay.

THOMAS R. HARTELL.
JOHN LETCHWORTH.

Affirmed and subscribed to before me, this 7th day of December, A. D. 1874.

SAMUEL BELL,
U. S. Comm'r.

And these defendants not waiving their said plea, but relying therethereon, do for answer to so much of said bill as these defendants have not pleaded to, and now and at all times hereafter saving and reserv-

ing to themselves all manner of benefit and advantage of exception that can or may be taken or had to the many errors, uncertainties, insufficiencies and imperfections in said bill of complaint contained, for answer thereto, or unto so much thereof as they are advised it is material or necessary for them to make answer unto, answering, say: These defendants admit that letters patent of the United States were, on the 18th day of October, 1870, issued to B. C. Tilghman for cutting and engraving stone, metal, glass, &c., upon his application therefor.

The defendants, further answering, say that a written and printed license was tendered them for acceptance and signature on or about the 4th day of March, 1874, but that the same not being in accordance with their original license and agreement, then and now in force, but differing widely therefrom, they did refuse to accept or sign the same.

36 These defendants, further answering, say that ever since the latter part of October, 1873, and continuously up to the present time, they have used the said patented machines, furnished by the said complainant, and have practiced the said patented process therewith.

And these defendants, further answering, say that saving and excepting in certain particulars wherein they have made valuable improvements upon said invention, they have practised and operated the "sand-blast process" of engraving glass, substantially in the manner set forth and described in a copy of patent annexed to said bill.

And these defendants, further answering, deny that it was any part of their said agreement with, or did they or either of them accept their said license from complainant, with the understanding that said complainant and his agents should have the right to visit and inspect the said sand-blast machines, so as aforesaid furnished them by said complainant; these defendants aver, however, that they granted to complainant and his agents such a privilege for several months after they, these defendants, had began to operate said machines; but many of the processes employed by these defendants in the sand-blast business, being improvements on the original invention, are secret, and known only to defendants and their workmen; and in order to protect these secrets they have found it necessary to exclude all persons from their factory except their own employees. These defendants aver, however, that they have at all times given complainant and his agents free permission to examine their books and accounts, at any time when they might feel disposed so to do.

And these defendants, further answering, say that after they had commenced to operate said machine under and in pursuance of said agreement and license, to wit, in December, 1873, they, in good faith, in pursuance of said agreement, sent to Gorham Blake, complainant's agent, by mail to Boston, their check for thirty-eight dollars and sixty-one cents, in payment of the royalties due under said agreement for the month of November, 1873, for which they received by mail a letter from the said Gorham Blake, agent, acknowledging the receipt, and enclosing a formal receipt for "sand-blast royalty for November," and

37 that they have regularly once in every month since sent a statement and check for the preceeding month's royalty, which were regularly received by the said Gorham Blake, and accepted by him for several months, and down to May, 1874, when he returned the check then sent him; and for every month since up to the present month these defendants have, in like manner, sent a monthly statement and check for the amount of the previous month's royalty, all of which checks since May last the said Gorham Blake has returned to these de-

fendants. And these defendants aver and say that they are ready to pay the amount of the said checks so returned to them whenever complainant or his agent will accept the same, and do maintain that they have tendered him the said amounts, the said Gorham Blake, complainant's agent, having requested these defendants to send him checks for the said monthly royalties as aforesaid.

And these defendants, further answering, aver that on the fourth day of April, A. D. 1874, the said Gorham Blake, complainant's agent, having demanded payment for the said machines and for labor and other expenses incident to putting them up and so furnished to these defendants by the said complainant as aforesaid, they, these defendants, paid him the price thereof, to wit, the sum of six hundred and forty-nine dollars, and received from him, as the attorney of complainant, a bill of sale and receipt therefor.

And these defendants pray the same benefits of the facts and things herein set forth as if for the reason thereof the said bill had been demurred to where a demurrer would have been proper, and the same benefit thereof as if they had been specially pleaded to the said bill.

And these defendants submit to this honorable court that said complainant has no right to any further answer to said bill or any part thereof than is hereinbefore contained, and no right to any injunction, account, or other relief prayed for in said bill; and these defendants pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

THOMAS R. HARTELL.
JOHN LETCHWORTH.

M. DAN'L CONNOLLY,
Def'ts' Sol'r.

38 UNITED STATES OF AMERICA,
Eastern District of Pennsylvania:

On this 7th day of December, 1874, before me, Samuel Bell, U. S. commissioner, personally appeared Thomas R. Hartell and John Letchworth, the above-named defendants, who, being by me duly affirmed, depose and say that they have read the foregoing answer subscribed by them and know the contents thereof, and that the same are true of their own knowledge, except as to the matters therein stated on information and belief, and as to these matters they believe them to be true.

THOMAS R. HARTELL.
JOHN LETCHWORTH.

Affirmed to and subscribed before me this 7th day of December, A. D. 1874.

SAMUEL BELL,
U. S. Commissioner.

39 And afterwards, to wit, on the fourth day of January, in the year of our Lord one thousand eight hundred and seventy-five, the said complainant, by his solicitor aforesaid, comes and files his replication to the defendant's plea and answer as follows, to wit:

40 C. C. U. S., eastern district of Pennsylvania. In equity. Oct. sess., 1874.

BENJAMIN C. TILGHMAN
vs.
THOMAS R. HARTELL AND JOHN LETCHWORTH. } No. 41.

The replication of the above-named complainant to the plea and answer of the above-named defendants.

This repliant, saving and reserving all and all manner of advantage of exception to the manifold insufficiencies both of the said plea and of the said answer, for replication thereunto and unto both the said plea and answer, saith that he will aver and prove the said bill to be true, certain, and sufficient in the law to be answered unto, and that the said plea and answer of the said defendants are both of them uncertain, untrue, and insufficient to be replied unto by this repliant; without this, that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver and prove as this honorable court shall direct, and humbly prays as in and by the said bill he has already prayed.

GEORGE HARDING,
Solicitor and Counsel for Complainant.

(Indorsed:) No. 41. Oct. sess., 1874. United States circuit court, eastern district of Pennsylvania. In equity. Tilghman vs. Hartell et al. Replication. Filed 4th January, 1875.

41 And afterwards, to wit, on the eleventh day of March, in the year last aforesaid, a stipulation signed by the solicitors for the respective parties is filed, which, being read, is in the words following, to wit:

It is hereby stipulated by and between the above-named parties that the letters patent No. 108,408, granted to Benjamin C. Tilghman on the 18th day of October, 1870, for an improvement in cutting and engraving stone, metal, glass, etc., and mentioned in the complainant's bill filed in the above-entitled cause, may be read in evidence at the hearing thereof.

GEORGE HARDING,
Counsel for Complainants.

42 M. DAN'L CONNOLLY,
Counsel for Def't.

And afterwards, to wit, on the sixth day of October, in the year last aforesaid, the special examiner comes and files his report of the testimony taken by the respective parties before him as follows, to wit:

43 Evidence offered and testimony taken on behalf of the defendants in the above-entitled cause before me, W. C. Strawbridge, special examiner, on the 31st day of March, A. D. 1875, at the office of George Harding, esq.

Present on behalf of complainant, Horace Binney, 3d, esq.

On behalf of the defendant, Albert S. Letchworth, esq., and M. D. Connolly, esq.

THOMAS R. HARTELL, being produced and affirmed, deposeth as follows:

Q. 1. Are you engaged in business; and, if so, where?

A. Yes; at 15 North 5th street.

Q. 2. Are you one of the defendants in this case?

A. Yes, sir.

Q. 3. When did you first arrange to operate under the sand blast patent, mentioned in the complainant's bill?

A. In the early part of the fall of 1873.

Q. 4. By whom and with whom was this arrangement made?

A. With M'r Richard Tilghman, the gentleman now present, by myself, and M'r Letchworth, my partner.

Q. 5. In what capacity did M'r Tilghman act?

A. As having the whole authority and control in the matter.

Q. 6. Did he represent himself as agent or principal?

A. As having authority from his brother, Benjamin C. Tilghman, the patentee in the matter, and as one of the Tilghman Sand Blast Company.

Q. 7. Was the proposition communicated to you personally by M'r R. A. Tilghman?

(Objected to by M'r Binney, the witness not having testified that any proposition was made.)

A. Yes, sir.

Q. 8. When was this proposition communicated to you?

44 A. In the early part of the fall of 1873.

Q. 9. What were the terms proposed to you in regard to your engaging in the sand-blast business under the patent already mentioned by M'r R. A. Tilghman?

A. That they were to supply us with three machines; that is, the Tilghman Sand Blast Company were to do so, and to put them up in running order, and that we were to pay a set scale of royalties, which would be supplied to us by M'r Blake.

Q. 10. Was this proposition assented to by your firm of Hartell & Letchworth?

A. Yes, sir.

Q. 11. Was it subsequently ratified?

A. Yes, sir.

Q. 12. When, where, and by whom?

A. At our office, in the early part of the—I don't understand the question.

Q. 13. Did you or your partner subsequent to this time have any conversation with Gorham Blake, plaintiff's agent, in regard to this proposition submitted to you by M'r R. A. Tilghman?

A. My partner had; I have no recollection of seeing M'r Blake up to that time.

Q. 14. Did your partner report to you the result of his conference with M'r Blake?

A. Yes, sir; he reported to me that M'r Blake had endorsed all that M'r Tilghman had promised.

(The last sentence of this answer is objected to as uncalled for by the question, volunteered by the defendant, and as hearsay.)

Q. 15. What did he report to you as regards his conference with M'r Blake?

(Objected to as hearsay.)

A. That machines should be put up in working order, for which we were to pay according to a set schedule that was to be sent on to us.

Q. 16. Did he (Mr. Blake) assent to or dissent from the proposition submitted to your firm by M'r R. A. Tilghman, as above set forth?

45 (Counsel for the complainant requests the witness in answering this question to state only what he knows of his own knowledge. Question withdrawn.)

Q. 17. Did M'r Letchworth report to you that M'r Gorham Blake assented to or dissented from the proposition submitted to your firm, as above stated by M'r R. A. Tilghman?

(Objected to as calling for hearsay testimony.)

A. My partner, M'r Letchworth, reported that M'r Blake was perfectly satisfied, and would have the machines put up as soon as possible.

Q. 18. Did your firm receive any sand-blast machines in accordance with the above agreement?

A. We received two sand-blast machines and one boring machine.

Q. 19. From whom?

A. From M'r Blake, the agent of the Tilghman sand blast.

Q. 20. What do you mean by two sand-blast machines and one boring machine?

A. One machine for ornamenting and roughing globes, and one machine for roughing and ornamenting flat glass, and one machine for boring holes.

Q. 21. Were these machines all received at one time, or at different periods?

A. At different times. We had to wait weeks for the flat machine.

Q. 22. When was the first machine received?

A. Some time in October of 1873.

Q. 23. Did you at or about this time receive any communication from M'r Blake in reference to this machine?

A. In September, I think, we received a letter from him (letter produced, marked "Exhibit A, W. C. S."). This is the letter.

Q. 24. Are you familiar with M'r Blake's handwriting?

A. Yes, sir.

46 Q. 25. Do you identify Exhibit A as having been written by him?

A. Yes, sir.

Q. 26. When did you receive the next machine or machines from M'r Blake?

A. We received them in portions and particles for at least six weeks.

Q. 27 How much of the complete sand-blast machines were supplied you by M'r Blake?

A. I should say that the machinery sent by M'r Blake would be about one-third of the machinery and fixtures. The other two-thirds was pulleys, shafts, blowers, &c., &c.

Q. 28. When and by whom were these sand blast machines put up?

A. One was put up at our factory, at the corner of Bread and Quarry street in this city, the other two at our factory in Fetter lane, and were superintended by M'r Hilton, a man sent by M'r Blake, at our expense.

Q. 29. Who paid for the additional parts of the machines not furnished by M'r Blake?

A. Our firm.

Q. 30. At the time of your agreement with M'r R. A. Tilghman, was

anything said by either party to that agreement concerning payment for the sand-blast machines to be furnished under it?

A. M'r Tilghman stated they would not sell machines—the Tilghman Sand-Blast Company, I mean. This was in answer to a question I asked him in reference to any necessary papers to be drawn up—as to whether it was necessary for any papers to be drawn up. He said no; M'r Blake would send us on all necessary papers of royalties, blank returns, diaries for the men to keep, &c. I then asked him the question, in case the parties were not punctual or truthful in sending on the royalties, how they acted. He distinctly said they never sold machines, but in cases like that held the power of removing them.

47 Q. 31. I understand you to say, then, that M'r Tilghman told you the Tilghman sand-blast would retain the ownership of the machines, and would withdraw them from licensees in case the royalties were not properly paid?

(Objected to as leading.)

Question withdrawn.

Q. 32. Did M'r Tilghman, at that interview, state anything in regard to the ownership of the machines thus to be furnished?

A. He distinctly stated they would not sell machines, but would retain the power of removing them if we did not pay the royalties.

Q. 33. Did he specify what papers or documents were to be furnished you by Gorham Blake?

A. No; he stated that M'r Blake would send on all the requisite authority and papers before we commenced operations.

Q. 34. Did he say anything about a license to be furnished by M'r Blake?

A. Nothing more than what I stated above.

Q. 35. Did M'r Letchworth report to you that M'r Blake, in the interview at New York above referred to, had said anything to him about furnishing a form of license to operate this sand-blast machine?

(Objected to as calling for hearsay testimony, and because the witness has not testified that any interview took place at New York.)

A. I do not remember anything about it.

Q. 36. After the machines had been furnished you, did you receive any communication from M'r Gorham Blake in regard to the schedule and other papers promised you by M'r Tilghman?

A. Yes, sir. On October 30th, 1873, the promised paper arrived—a written license, with a promise of a printed schedule of royalties to be sent the next day. (Schedule and letter produced, marked "Exhibit B, W. C. S."

Q. 37. Examine the dates of Exhibit B and state what they are and when they were received.

48 A. The letter is dated October 30th, 1873, and the schedule of royalties, September 1st, 1873; and received in due course of mail.

Q. 38. Where does the letter purport to be written from?

A. The letter of October 30th is written from New York—from Tilghman sand-blast—and the printed schedule from Boston.

Q. 39. Did you receive any subsequent communication and documents from M'r Blake? If so, what were they, and when?

A. Yes, sir. On November 7th we received another letter from him, enclosing blank diaries for our foreman to keep the amount of royalties in, and blank returns for us to fill up under their license and to return to them monthly, less twenty off, by check. The letters and diaries and blank returns I now produce. (Marked by the examiner "Exhibit C.")

Q. 40. Please examine the date of the letter, and state what it is.

A. A letter dated November 7th, and received in due course of mail.

Q. 41. Look at the documents appended to said letter; state what they are, and also if these were all that you received from M'r Blake at that time.

A. The one paper is a printed copy of royalties; the other is one of a lot of blank forms sent on for us to fill up monthly under the Tilghman sand-blast license.

(Answer objected to, as the letter and documents are the best evidences.)

Q. 42. Returning to Exhibit B, state whether it is now in the form as when you first received it.

A. It is, except as to the words, "Zinc, ten cents per square foot," which were interlined in our office April 4th, 1874, by M'r Blake. The lead-pencil memorandum on the left side of the margin was made by me at the time he made the interlineation.

Q. 43. Did you receive any subsequent communication from M'r Blake?

49 A. Yes; we received one note November the twelfth, 1873, enclosing bill for three machines, and for board, work, wages, travelling expenses of M'r Hilton—the man sent on by the Tilghman sand-blast.

(Letter and bill produced, marked "Exhibit D.")

Q. 44. Did you receive any further communications from M'r Blake?

A. Yes; on the nineteenth of November, 1873. (Produced in evidence, and marked "Exhibit C.")

Q. 45. What did this letter of November 19th call for?

(Objected to as incompetent.)

A. It was partly an answer.

Question withdrawn.

Q. 46. Did you at that time pay the bill referred to in that letter?

A. No, sir.

Q. 47. What was the next correspondence between you and M'r Blake?

A. We received a letter dated December 6th, containing receipt for royalties. There are other receipts with the endorsed checks January 8th and February 5th. These checks were for royalties due for December and January. The receipts came on for these checks, but we cannot find them. (Check and letter marked "Exhibit F, W. C. S." Check marked "G, W. C. S." Check marked "Exhibit H, W. C. S.")

Adjourned to 11 a. m. Thursday, April 1st, 1875.

THURSDAY, *April 1st*, 1875.

Present, Horace Binney, 3rd, esq., for complainant.

For defendant, M. D. Connolly, esq.

Q. 48. Did you receive or can you produce any further letters and documents from M'r Blake?

A. Yes; a letter dated March, 4th, 1874, which we received in due course of mail (marked "Exhibit I, W. C. S."), enclosing another

50 bill for machines, dated October, 1874, with an additional charge of twenty-five dollars each on the two machines, and also a new agreement which they wished us to sign (marked "Exhibit J, W. C. S.").

Q. 49. Was this the first time you received such an agreement or anything similar to it from M'r Tilghman or M'r Blake?

A. The first time we ever received one like it, or heard of it, or saw it.

Q. 50. Have you any further letters or documents of M'r Blake? If so, produce them?

A. We have one dated March 7th, a letter, from their factory—from the "Tilghman Sand Blast," New York—which came in the due course of mail (marked "Exhibit K, W. C. S." offered in evidence).

Q. 51. Have you any further letters from M'r Blake?

A. A letter dated March 9th, from Boston, which we received in due course of mail (offered in evidence, marked "Exhibit J, W. C. S."). It is a receipt for royalty due in February.

Q. 52. When did you first personally see M'r Blake in reference to your arrangement with him in regard to the sand-blast business?

A. I saw M'r Blake several times at our factory during the time they were putting up the machines. Nothing was said between us in reference to the arrangement that had been made with M'r Richard Tilghman, but about the middle of March, 1874, M'r Blake came to our office and demanded payment for bill of machines, and that we should sign the new agreement mailed us on March 4th. My partner was away at the time, travelling. I positively told M'r Blake that we would not sign any such new agreement; that we had already made an agreement with M'r Tilghman, which arrangement was that they were not going to charge for machines; that we had already an agreement for royalties to be paid, and authority to use machines. M'r Blake told us we would have to pay for the machines, as they had made new arrange-
51 ments, as they could not afford to carry all the machines that were and would be in use. I told M'r Blake we were willing to pay for the machines if a deduction was made on the exorbitant charge of M'r Hilton's labor and board, but under no circumstance would we sign a new agreement; that we might as well at once stop, as the new agreement at once added twenty per cent. on the royalties, and gave them the power on a few months' notice to raise the royalties up to any price they chose; there was no limit to it. M'r Blake left with the promise to see us again on M'r Letchworth's return.

Q. 53. Did M'r Blake at that interview intimate that you or your partner had ever promised to sign or accept the license or agreement forming part of Exhibit I, W. C. S.?

A. No, sir; as I have above stated, he told me it was a new arrangement.

Q. 54. Subsequent to this interview did you receive any further letters?

A. Yes, sir; a letter dated March 25th, from Boston, which was received in due course of mail (letter offered in evidence, marked "L, W. C. S.").

Q. 55. State what this letter was accompanied by, if anything.

A. It was accompanied by another new agreement, which is annexed to the letter and offered in evidenc, warked "L, W. C. S. It differed from the first one received in the early part of March, by having some of the privileges promised in the one of the 4th of March stricken out. That, I believe, is all the difference.

Q. 54. When did you next see M'r Blake?

A. He was at our office again on the 3d of April, 1874.

Q. 55. State the interview you had with him.

A. M'r Letchworth having returned, we were all together; he again demanded, at our office, payment for machines, and our signature to the new agreement. We told him we would pay the bill if he would deduct the overcharges on Hilton's labor and the twenty-five dol-
52 lars each on the two machines which they had overcharged us

on the last bill; but we would not sign the new agreement under any circumstances. He left us.

Q. 56. Can you produce any further letter from M'r Blake?

A. We received a letter from him, dated April 3d, on April 4th. (Letter offered in evidence, marked "Exhibit N, W. C. S.")

Q. 57. Did you see M'r Blake in pursuance or that letter, and when?

A. We saw him on the 4th of April, A. D. 1874.

Q. 58. Please state what occurred at that interview.

A. He again stated that he wanted the bill for the machines paid, and the new agreement signed, or we were to at once stop using the machines, that day. We told him we would pay the bills with the deductions which are before stated, but would not sign the new agreement. M'r Blake accepted our proposition, made out a bill and receipt, for which we gave him a check for six hundred and forty-nine dollars, which is here produced, marked "Exhibit M, W. C. S.," and attached to letter marked "M, W. C. S." After this affair was settled, at my request, M'r Blake endorsed our previous authority for royalties, by inserting in our original agreement (in evidence as Exhibit B) the words, "Zinc, ten cents per foot," which was not on it before; which words added being in purple ink, about the middle of the paper, headed Tilghman's sand-blast; a memorandum of which I made at once in pencil on the margin of that paper, which is, "Written by M'r Blake, April 4th, after we paid machines. Mem., T. R. H."

Q. 59. Subsequent to this time did you receive any other letter from M'r Blake? If so, produce it.

A. We received one dated April 10th, 1874. (Produced, marked "Exhibit N, W. C. S.") After we had paid for machines, M'r Blake returned to Boston and acknowledged by this letter check for March royalties.

Q. 60. Did you receive any other letter from M'r Blake that month?

53 A. Yes; a letter dated April 25th, which was received in due course of mail (offered in evidence, and marked "Exhibit O, W. C. S."), notifying to desist from using the machines we had paid for some time before.

Q. 61. What was the next letter you received from M'r Blake?

A. Received one from Boston, dated May 1st, which we received in due course of mail (offered in evidence, marked "Exhibit P, W. C. S."), enclosing another new agreement, and requesting us, if satisfactory, to sign; but in all the correspondence from M'r Blake, has he in no instance hinted or mentioned that we ever promised to sign a new agreement, or that we had ever heard of or seen the new agreement before the one enclosed March 4th, 1874, in letter of that date (marked "Exhibit I, W. C. S.").

Q. 62. What has been your course up to and ever since that time in reference to the payment of royalties?

A. We have sent them regularly, before the 5th of each month, to M'r Gorham Blake, of Boston—our checks every month before the 5th, as per agreement, receipts for which we have from M'r Gorham Blake with checks returned down to March, 1875. (Receipts, letters, post, office registry receipts offered in evidence, and marked "Exhibit Q, W. C. S.")

Q. 63. In what form did you send on your statements of monthly royalties?

A. On the printed forms sent us by M'r Blake for Sand Blast Company, to be filled up by us under their license to use (our) their process,

which we signed and sent on regularly (form offered in evidence, marked "Exhibit C, W. C. S.") every month. The last few months we were out of printed forms; we wrote on to M'r Blake to furnish the forms, which he did not do; so we sent on written statements in the same form as near as possible.

Q. 64. Are you sufficiently familiar with——(withdrawn.)

Q. 65. Are the papers in evidence, purporting to be signed by Gorham Blake, in his handwriting?

54 A. Yes, sir; and were received by me (us) in due course of mail.

Q. 66. Did you, or your partner, to your knowledge, ever agree to sign the license and agreement marked "Exhibit I, W. C. S.," or any one substantially the same, or any of those new agreements subsequently received by you from Gorham Blake, as above stated?

A. We were never asked to sign any agreement, and never saw or heard of the new agreements before the one sent us March 4, 1874, and we never agreed to sign any agreement.

Q. 67. The agreement of the 4th of March; what do you call that? I want you to identify the paper of the 4th of March, marked "Exhibit I, W. C. S."

A. That is the first time I ever saw that agreement. I identify that paper as the agreement referred to in my previous answer. This new agreement, Exhibit I, W. C. S., was received by us in due course of mail, dated May (March) 4th; was the first time we ever saw or heard of it, and we never promised to sign it.

Q. 68. Has M'r Tilghman or M'r Blake ever alleged to you, in letter or in conversation, that you or your partner ever promised to sign any new agreement?

A. Never.

Q. 69. When the sand blast machines were originally furnished you, was it understood that they were received for experimental purposes, or otherwise?

A. Certainly not for experimental purposes, inasmuch as in January, 1874, we sold nearly all our old business out at auction, at a great sacrifice, to make room for the sand-blast goods, and put that money, with another large amount, in the sand-blast manufactory; and if it had been an experiment we would have ordered only one machine, and tested and tried it on the one before we would have ordered the others.

Q. 70. What steps, if any, did you take in advertising the sand-blast business after embarking in it?

A. We got up wood cuts, with the sand-blast designs on them, for a new book, which we got up at great expense, to send around to

55 our customers, with prices attached, made up from our calculation of royalties we had agreed to pay to the Tilghman sand-blast, and we could not raise on our customers on these prices; it would ruin our business.

Q. 71. Would the acceptance of the "new agreement" by you have compelled a change in your price-list thus advertised, as you state?

A. Certainly; as we have twenty per cent. off our royalties agreed upon with the sand-blast company which is not allowed on this new agreement, and the new agreement gives them the power in a few months of raising the royalties on us to any amount they choose. While they themselves, owning the Boston and New York sand-blast, and, I believe, nearly all the others in the country, would really have no royalty to pay; therefore they could easily push us out entirely, and then they would have the control just as much after we had bought the

machines as they meant to have had if they had kept control by not selling them.

(This answer, except the first word, is objected to as volunteer argument on the part *on the part* of the witness, to which objection the witness volunteers the reply, "It is truthful, though.")

Q. 72. Would the acceptance by you of the new agreement have varied your original contract with the Tilghman sand-blast other than in respect of striking out or disallowing the twenty per cent.?

A. I can't understand that question. Yes. The difference would be the power they would have in a few months' notice through the Boston post-office, which would we have to consider a delivery, and which would give them the power of raising our tariffs up to any amount they chose, and therefore compel us to stop running the machines we had paid for. Also, in the second new agreement which they had sent us, marked "Exhibit L, W. C. S.," lined off the words, "and also any improvements thereof for which letters patent may be obtained by said Tilghman, or to which he may acquire title as assignee or licensee."

Q. 72. Did your firm ever agree to allow the Tilghman sand-
56 blast, or its agent or attorney, to visit and inspect the sand-blast machines put up your works?

A. Certainly not. After the machines were ready for operation we allowed them, out of courtesy, to visit our factory, but found they were copying all our improvements, and taking them to their Boston and New York factories, and were forced, in self-defence, to instruct our foreman not to allow any one except the employees to enter the factory.

Adjourned to Monday, April 5th, at 2 o'clock p. m.

MONDAY, *April 5th*, 1875.

Present, George Harding, esq., for complainant; A. S. Letchworth and M. D. Connolly, esq's, for defendants.

Cross-examined by M'r Harding:

X Q. 73. I understand you to say that the agreement under which you are working the sand-blast process was made by your partner and yourself personally with R. A. Tilghman?

A. Yes, sir.

X Q. 74. How many interviews had you with R. A. Tilghman about the said agreement?

A. I cannot positively say how many—not many; not over three or four; one or two previous to October and probably one or two after.

X Q. 75. Give the places of these interviews, the dates, and who was present.

A. In our office. There might have been one at our factory. The dates I cannot give precisely—one just before we had the machine and one after we had received the license, the schedule of royalties, &c., &c.

X Q. 76. At what date do you consider that agreement was made with you?

A. The most of the conversation and arrangements were made through M'r Richard Tilghman and my partner. The date of the
57 conversation I had with M'r Richard Tilghman in reference to any necessary agreement or writings, I do not know exactly; but it was previous to the sending on of the license, schedule of royalties, blank statements to be filled up under their license, and other papers.

X Q. 77. Was it with you or with your partner that the final and definite agreement was made?

A. It was with my partner and myself in our office with M'r Richard Tilghman.

X Q. 78. When was that?

A. I have no memorandum of the exact date. I think somewhere in the early part of September, 1873. It might have been earlier than that.

X Q. 78. Was any written memorandum of the terms of said agreement then made?

A. No, sir.

X Q. 79. Did you make any memorandum afterwards, and, if so, when first?

A. I made no memorandum then of any conversation, on account of my partner telling me M'r Richard Tilghman was such a high-toned gentleman that his word was his bond, and that anything promised would be fulfilled. At the time the machines were ordered through M'r Richard Tilghman I asked him if it was necessary for any papers or agreements to be drawn up. He distinctly said, no; that they would send us on a list of royalties and necessary papers, through M'r Blake, previous to our starting. I then asked him, in case of royalties not being paid regularly and truthfully, how they acted. He distinctly said that they held the machines in their own hands and would not sell them, keeping to themselves the privilege of taking them away in a case like this.

X Q. 80. Was it part of your agreement with R. A. Tilghman that the machines were to remain permanently complainant's property, and were not ever to be paid for by you?

A. Never to be paid for by us.

X Q. 81. Was it part of the said agreement that no written
58 memorandum of the terms of said agreement should be made, except as to the schedule of royalties?

A. M'r Tilghman told me that it was not necessary to sign any papers; we had to acquiesce in what he said.

X Q. 82. At the time said agreement was made, were the rates of royalties made known to you?

A. No. They were promised to be sent through M'r Blake; all the necessary papers by the time we were ready to start.

X Q. 83. Under said agreement you bound yourself to accept the schedule of royalties, without knowing what they were or might be. Is that correct?

A. Not exactly. There were one or two articles talked over—in fact, the one of most vital importance to us, roughing gas-globes, which price he stated would be eight cents per dozen. We told him it would be rather high for plain roughing, and asked him if he could not reduce it. He distinctly and positively said the tariff was fixed, and they could not and would not alter it.

X Q. 84. Were there any other rates of the schedule fixed by M'r Tilghman at the time of said agreement?

A. One or two of the other prices were spoken of. We made no objection to them after we knew the schedule was fixed.

X Q. 85. What do you mean by the schedule being fixed? By whom and for whom was it fixed?

A. I mean the schedule that M'r Tilghman told us M'r Blake would send on.

X Q. 86. At the time of your making said agreement with R. A. Tilghman, did you know that there was a schedule of rates of royalty fixed and accepted by other manufacturers using the sand-blast process?

A. We only knew of a schedule that was to be sent on with a license, through M'r Blake.

X Q. 87. Did you know the fact that other manufacturers were working the sand-blast process at that time, under license from complainant?

59 A. We knew of a small affair in New York, which we understood was experimenting, and we knew of a larger concern which we supposed belonged to the Tilghman Sand-Blast Company, but we understood also from M'r Tilghman that the small one had never paid them one dollar royalty, and we did not hear of any others using the sand-blast process at that time.

X Q. 88. By your said agreement were you bound to accept the rates of royalty sent you by M'r Blake, whatever they might be?

A. No, sir; positively no. We were bound to accept the schedule sent us on November 1st and October 30th, 1873, and not what he might send us afterwards, as M'r Tilghman positively stated the royalties already arranged could not be altered.

X Q. 89. You say in answer 78 that you made your agreement with R. A. Tilghman in 1873, early part of September. Under said agreement were you then bound to accept any schedule of royalties which M'r Blake would send you before the machine started?

A. We were bound to accept the schedule of royalties sent us by M'r Blake October 30th and November 1st.

X Q. 90. Did you know in September, 1873, what schedule of royalties M'r Blake would send you in October or November?

A. Not wholly; only in part, as we had talked over several—flat-glass roughing, roughing globes, and one or two other items.

X Q. 91. If the schedule of royalties subsequently sent you had differed from the rates spoken of by Richard Tilghman, which rate was to be binding on you (objected to by M'r Letchworth) according to your understanding of said agreement?

A. We were—I can't answer supposition. I can only answer fact.

X Q. 92. Was it part of your said September agreement that the machines to be put up by complainant were to be put in working order to your satisfaction?

A. Yes, it was.

X Q. 93. Under said agreement you were not bound to accept
60 said machines and work the process unless the machines were satisfactory to you. Is that so?

A. The understanding was that they were to be put in working order by the man they sent on, whose expenses we had to pay.

X Q. 94. Was it part of the said September agreement that your firm should have an exclusive license to work the sand-blast process on glass globes or any other glass article in the city of Philadelphia?

A. We were not to have the exclusive right, but M'r R. A. Tilghman promised us that if we pushed the process thoroughly and used all our energies, they would not let anyone else have a machine in this city.

X Q. 95. Was that a substantial part of the definite and final contract made in September by R. A. Tilghman?

A. No, sir. I think this promise was made some time after the definite contract. I cannot say the exact date of it; I have no memorandum.

X Q. 96. Which of the machines was earliest in working order satisfactory to you, and when?

A. The globe-machine. I can't give the exact date, but it was a few

days previous to the license and schedule coming on—towards the latter part of October.

X Q. 97. When was the flat-glass machine first tried?

A. I don't remember the date; it was some time after the globe-machine.

X Q. 98. Did it work satisfactorily from the first, or did it require alterations?

A. No, sir; it did not work satisfactorily at first, and we lost hundreds of dollars by it. We wrote M'r Blake about it. M'r Richard Tilghman came in answer, and after another loss of time to us, M'r Tilghman made the machine work satisfactorily. I cannot give the date; about the middle of March.

X Q. 99. You say in your 80th answer that by your agreement
61 with R. A. Tilghman the machines were never to be paid for by you. It appears from Exhibit D, put in by defendants, that on the 12th of November, 1873, M'r Blake sent you a bill of seven hundred and ninety-eight dollars, to be paid complainant for said machines. What answer, if any did you make to this demand?

A. I made no answer. My partner and I consulted over the matter, and we concluded it was a mere form, sending the bill on.

X Q. 100. Were you surprised at receiving this demand?

A. We were very much so.

X Q. 101. Did you consider it a violation of your September agreement with R. A. Tilghman?

A. We merely thought it was a form. Yes; if he should have insisted on it, we should have considered it so.

X Q. 102. Did you ever express your surprise or objection to this written demand in writing, either to M'r Tilghman or to M'r Blake?

A. I don't remember writing to them. As I have before stated, I considered it a mere form.

X Q. 103. Did you ever express verbally to R. A. Tilghman your surprise at this violation of your agreement?

A. I cannot say that we ever did to M'r Tilghman, as M'r Richard Tilghman had a happy knack of keeping out of the way of any conversation of this kind, and of leaving the whole matter to M'r Blake. But when M'r Blake sent us the second bill, on March the 4th, 1874, dated October, 1874, several months ahead, with twenty-five dollars extra on each machine, and a few days afterwards came for a settlement, I then asked him the meaning of it, of sending a bill for machines, when M'r Richard Tilghman said they would not sell them, and M'r Blake's answer was, they must have the money, as they were short, and on account of that shortness, had made other arrangements than those made prior with M'r Tilghman.

X Q. 104. In the interval between October 30th, 1873, and March, 1874, did you frequently see M'r Richard Tilghman?

A. No, sir; I did not frequently see him, but heard of him
62 being at our Fetter Lane Factory, interfering with our workmen for hours at a time—experimenting at our expense.

X Q. 105. Did you ever see him during that interval?

A. Yes.

X Q. 106. Did you then speak to him about this attempted violation of your agreement?

A. No, sir; for the reason that I thought it, as I have before stated, a mere form, and in all these matters of the agreement, &c., he had referred us to M'r Blake.

X Q. 107. Do you mean to be understood to say that the agreement

made in September between you and M'r Tilghman was to be altered by M'r Blake at his pleasure?

A. Most assuredly not. M'r Tilghman's agreement was to be carried out by M'r Blake, and all our correspondence and checks for royalties, etc., etc., to be sent to M'r Blake.

Adjourned to Wednesday, April 7th, 1875, at 11 a. m.

WEDNESDAY, *April 7th*, 1875.

Present, George Harding, esq., for complaint; A. S. Letchworth, esq., and M. D. Connolly, esq., for defendants.

X Q. 108. Referring to your 80th answer, do you mean to say that the machines were to remain permanently complainant's property? Please answer yes or no.

A. Yes. M'r Tilghman said they would not sell the machines.

X Q. 109. Please state fully and in detail all that occurred in the interview between R. A. Tilghman and yourself and partner, held at your office in September, 1873, as referred to in your 77th and 78th answers?

A. There had been a great many previous conversations to this with M'r Letchworth and M'r Tilghman, but on this final arrangement when we told M'r Tilghman that he might send the machines on, we
63 had a conversation in reference to the royalties on a few of the principal ones as far as we were concerned. We had also had a conversation in reference to machines, wishing to know what the cost would be; he then said that they never sold the machines.

X Q. 110. State fully and in detail the particulars of those conversations.

A. My memory does not serve me as to the whole of the conversation, as a great deal of it was in reference to chemical matters foreign to the arrangement of the machines.

X Q. 111. State all that you can recollect of that conversation.

A. I can't remember anything further in reference to the machines, further than M'r Tilghman said he would have them sent on as soon as possible.

X Q. 112. State all that you can recollect of that conversation respecting your use of the sand-blast process.

A. I can't remember anything in reference to our use of the sand-blast process except M'r Tilghman explained to us some of their processes of working it in their New York factory; that is all I can say as to that.

X Q. 113. You have said in your 77th and 78th answers that the final and definite contract between your firm and the complainant was made verbally, between R. A. Tilghman and yourselves, at that interview in September. State fully and in detail all the conversations on that subject at that time.

A. I can't remember more than what I have said.

X Q. 114. Without reference to what you have said before, please repeat here in detail what passed between you and your partner and M'r Tilghman at that interview in September, and confine your answer to that interview entirely. The witness is requested to read the 77th and 78th answers, and confine his attention to the interview there mentioned and not mention what transpired at other interviews than that one.

A. I am not positive whether this interview took place in September or early in October; it has been so long since, and having such
64 confidence in M'r Tilghman, I have kept no memorandum, but have the points only in my memory. The machines were to be

sent on as soon as possible and put in working order, and were to be considered as their property, to be taken away by them if we did not honestly pay our royalties; the authority, or license, etc., was to sent on by M'r Blake, which was to be considered our agreement and contract, and binding on both sides.

X Q. 115. Have you stated all the points then agreed upon?

A. Yes, sir.

X Q. 116. All the points not mentioned in that conversation were to be settled finally by the papers which were to be sent on. Is that so?

A. The points were already settled in our conversation. We did not know of any other points. All the points were understood except the authority to run the machines, which was to be sent on by M'r Blake previous to our commencing to use the machines.

X Q. 117. Was anything said at that conversation about the amount of royalty which you were to pay? If so, state precisely what was said.

A. We asked M'r Tilghman in this conversation in reference to three, or four, or five articles—in reference to the royalty, I should have said—in reference to four or five of the articles which were of most consequence to us, especially the glass globe machine which has only about three royalties on it. He then stated what the royalties on those articles were—eight cents per dozen plain rough globes, twelve cents per dozen cut globes under three dollars, twenty-four cents per dozen cut globes over three dollars, which was perfectly satisfactory to us. He also stated one cent per foot flat glass roughed on the flat machine, which was also perfectly satisfactory to us. We spoke about eight cents per dozen being rather high for the rough globes, and asked him if he could not alter those prices; he answered, no, the prices were fixed definitely and positively.

X Q. 118. Who did he say were paying these prices?

65 A. I don't remember that he said anybody was paying them; in fact, there was hardly anybody paying them; we were almost the first in working the glass-globe machine.

X Q. 119. What did he say as to other prices at that conversation; how were they to be fixed?

A. They were already fixed, but were to be sent on by M'r Blake.

X Q. 120. Did you know what those other fixed prices were?

A. M'r Tilghman may have told us, but I have not kept them on my memory, except one other I remember; ornamenting glass, which was to be 15 per cent. off selling price over and above cost price of the glass.

X Q. 121. Have you now stated all that you can recollect of the details of the final and definite contract made in September, as stated in your 77th and 78th answers?

A. All I can remember of that conversation.

X Q. 122. Was it then agreed that a written license should be sent on to you by M'r Blake?

A. It was then agreed that M'r Blake was to send us on authority to work the process, with all the necessary papers, before we commenced operations with the sand-blast machines.

X Q. 123. According to your understanding of the license under which you are now working, is the complainant at liberty to license other parties in Philadelphia to do the same kind of work that you are doing?

A. Legally, but not morally; as they promised us that if we pushed it they would not do so.

X Q. 124. Who was to be the judge of whether you pushed it or not?

A. There was nothing said about who was to be the judge; it w

only understood that we were to put all our energies and money in to push it—which we have done.

X Q. 125. Have you not sworn in an affidavit made in the application on motion for a special injunction in this case, that you "were to have the exclusive privilege and license of the business in Philadelphia?

66 A. Yes; Mr. Tilghman having promised to give it us exclusively if we pushed the matter and put all our energies in it, promising not to give anyone else the right as long as we did so. (The latter part of the answer objected to as not called for by the question.)

X Q. 126. Is it true or not that by the agreement made between complainant's agent and yourself and your firm you were to have the exclusive privilege and license of the business in Philadelphia? Please answer direct, yes or no.

A. It is a question I can't answer, I have got to explain it; as I have before stated, Mr. Tilghman promised us exclusively for this city if we pushed it, which we have done. I said I can't answer the question yes or no.

X Q. 127. Referring to your 99th, 100th, and 101st answers, please state why you paid M'r Blake for the parts of machines furnished by complainant.

A. Because he insisted upon it.

X Q. 128. At the time you paid it, did you consider that the demand was in violation of the existing agreement?

A. On their part—yes.

X Q. 129. Did you refer M'r Blake to M'r Tilghman, with whom you had made the agreement that machines should not be paid for by you?

A. I had previously spoken to M'r Blake about this, and told him our understanding with M'r Richard Tilghman; he stated that they could not carry all the machines, and had made other arrangements. At the time the bill was paid, I have no recollection referring to M'r Tilghman, as M'r Tilghman had already stated that M'r Blake had all that branch in his own hands.

X Q. 130. Did you consider yourself under any obligation to pay this money?

A. We were pleased to purchase the machines. (M'r Tilghman says to witness, "Now answer the question.") Certainly not, as to the agreement made with M'r Tilghman; but as before stated we were

67 pleased to pay it, rather than have any lawsuit about it. We were notified by M'r Blake that if we did not pay for the machines, to stop using them.

X Q. 131. Was it in consequence of that notice (Defendant's Exhibit "M.") that you paid said bill?

A. In consequence of that notice and the wish to avoid a lawsuit.

X Q. 132. Is Exhibit "M" of defendant's, the notice you refer to?

A. That is the written notice; but there was one or two verbal notices.

X Q. 133. At the interview with M'r Blake in which you paid this money, did he demand your signature to a written license as referred to in said notice, Exhibit "M" of defendants?

A. He demanded our signature to a new license.

X Q. 134. Had you ever signed any license at that time?

A. No, we never had. M'r Tilghman told us, at the time of the agreement, that M'r Blake would send us on authority and a license, and he never requested us to sign it, as he told us in our verbal agreement, distinctly and positively, that we had nothing to sign; their owning the machines made it unnecessary.

X Q. 135. State at what time and place M'r Tilghman told you distinctly and positively you had nothing to sign.

A. In our office, either at the time of the definite arrangement, or the next conversation we had afterwards; I do not know which.

X Q. 136. Are you willing to swear that this formed part of the final and definite arrangement?

A. I am swearing—am I not? Do you want me to swear again? I am willing to positively swear that it was either at the final arrangement or at the next interview afterwards.

X Q. 137. Look at your answers, purporting to contain all the material circumstances and conversation at the interview in which the final and definite arragement was made, and see if you then state that M'r Tilghman then told you that you had nothing to sign

68 A. No; as I did not then remember it.

X Q. 138. Do you remember it now?

A. I distinctly remember him saying so; but whether at that interview or afterwards, I cannot positively say.

X Q. 139. You have stated frequently, in your testimony, that the "necessary papers," or license, was to be sent on to you by M'r Blake; did he send them; if so, when, and what are they?

A. He sent them. The first on October 30th, 1873; the royalties, or the printed copy of them, on November 1st, 1873, and November 7th he sent us diaries, or books for the foreman to keep the royalties in, also printed blank forms for us to fill up—the bottom printed, "under your license." He also wrote us to be particular in seeing that our foreman put down the royalties, and particularly requested us to send a check monthly for the royalties.

X Q. 140. Which of these papers did you consider your license from complainant?

A. We considered the whole of them—Exhibits B and C of defendants.

X Q. 141. Did you notify complainant's agents at that time of your acceptance of said alleged license?

A. No, sir; I did not think it necessary.

X Q. 142. Have you ever done so?

A. No, sir; never thought it necessary.

X Q. 143. I understand that at this time, October 30th and November 7th, the globe machine was in satisfactory operation. Is that so?

A. Yes, sir; about that time.

X Q. 144. I understand, also, that the flat glass machine required and received certain alterations from complainant's agent, and was not in satisfactory working order until about the beginning or middle of March. Is that so?

A. It was running some time in December, for several weeks, but not satisfactorily. We wrote them on the matter, and M'r

69 Tilghman came on, promising us it would not take over two weeks; but on account of carelessness in Boston it took him to about the middle of March to get it in satisfactory order.

X Q. 145. The royalties sent by you to M'r Blake, prior to March, 1874, were wholly or chiefly for the work done on the globe machine. Is that so?

A. The largest proportion was on the globe machine, I suppose; I can't tell without referring.

X Q. 146. Before you paid this bill for the machines, did you consider them the property of the complainant?

A. Most decidedly.

X Q. 147. The whole of them?

A. That is a question I can't answer till I ask a question. The whole of what they sent from Boston, which was a small proportion of the machinery used; the balance was paid for by us.

X Q. 148. Referring to your 53d answer, do you mean that on the 4th of April, 1874, when you paid the bill for the machines, a new and different arrangement from that previously existing was made between you and complainant?

A. Not in references to the royalties and license, certainly not; but only to our owning the machines in place of them.

X Q. 149. Under this modification of the original agreement, what remedy was M'r Tilghman to have, in case of your refusal to pay royalties?

A. Under the agreement with them they held the power of removing their machines if we did not pay the royalties.

X Q. 150. Question 149 repeated.

A. He had the remedy of suing us for it, I presume; there was nothing said about it.

X Q. 151. Was any written memorandum of this change of the agreement made at that time?

A. Yes, sir; I made a memorandum in black lead on the margin of our old printed list of royalties of M'r Blake having given us or
70 written the royalty on zinc, which was not previously in the list, having thereby endorsed the original agreement for royalties, after having received the money for the machines.

X Q. 152. Is this the only written memorandum on the subject?

A. The only one I have any recollection of. There was a bill receipted by M'r Blake, and a check endorsed by him, for the machines and labor (produced, marked "Exhibit M"); also a notice for us to stop using the sand-blast if we did not pay for the machines and sign a new license.

X Q. 153. Did he bring a new license with him?

(Witness continues answer 152.)

I must think about that new license, whether he brought a new license; whether or not. I now remember that he enclosed a new license on March the 4th, 1874, the first time we had ever [heard] of it; and he did not bring one at the time. We paid the bill; but he left another copy with us the day before, when he notified us to stop. In answer to the previous question in which I was interrupted, and got partially through: we told M'r Blake we would pay for the machines, but would not sign any new license under no circumstances whatever.

X Q. 154. Was that letter of March 4th, Exhibit I, the first letter which enclosed you a license or referred to a license by that name?

A. It was the very first letter, and enclosed a new license, or that ever hinted at a new license.

X Q. 155. Was it the first letter that mentioned a license by the name of a license?

A. No, sir.

X Q. 156. Which was the first letter that mentioned a license by the name of license?

A. The letter of November 7th, Exhibit C.

X Q. 157. If the papers which are annexed to Exhibit C were
71 in fact not a license, then you never did receive anything which would be called a license till after March 4th, 1874, did you?

A. We only received March 4th a new printed license, after having received the one September 7th, and those papers belong to the same license as the papers October 30th and November 7th, 1873.

X Q. 158. You have always been under the impression that the papers annexed to the letter of November 7th, 1873, and October 30th, 1873 (Exhibits B and C), are what is called a license, have you?

A. Certainly.

X Q. 159. You have acted on that impression, have you, in giving your testimony, and in your behaviour towards the Messrs. Tilghman; how is that?

A. Yes, certainly.

X Q. 160. If it should turn out that those papers annexed to Exhibits B and C were not a license, then you have been mistaken, is not that so?

A. We cannot have been mistaken, because it was a license promised by M'r Tilghman, to be sent to us by M'r Blake prior to our commencing to use the sand-blast machine.

X Q. 161. Now I want to know if you are certain that a license was to be sent to you by M'r Tilghman through M'r Blake?

A. The license, or proper authority, was to be sent to us by M'r Blake before we commenced the sand-blast process.

X Q. 162. Are you certain that it was understood between you and M'r Tilghman that a license or proper legal authority was to be sent to you before you commenced to work the sand-blast process?

A. I am positively certain that a license or necessary authority was promised to be sent to us through M'r Blake before we commenced using the sand-blast.

X Q. 163. Did you understand this was to be in writing—this license or authority?

72 A. I certainly understood it would be in writing, and some in printed forms to be filled up.

X Q. 164. Was this understanding between you and M'r Tilghman had at the time you refer to as the making of the agreement, in September, 1873—about that time?

A. It was either that day, or a day or two subsequent to the making of the agreement, that this understanding about sending a license was had between he and I. I won't be positive whether the agreement about sending a license was made at the time the other agreement was made or not.

X Q. 165. Did you expect to receive a license from M'r Tilghman through M'r Blake before you run the machine, in accordance with this understanding?

A. We expected to receive authority and all necessary papers through M'r Blake to run the sand-blast machines, to be delivered before we commenced the sand-blast, and which authority or license has never been disputed, or any of the papers for signature sent us, till March 4th.

X Q. 166. Did you expect papers to be sent you for signature; and why do you use that expression in your last answer?

A. Most decidedly not; we did not expect any papers for signature; as M'r Tilghman told us that it was not necessary for us to sign any papers, and I was never more astonished [than on receipt of] the new agreement, March 4th, requesting our signature.

X Q. 167. Why did you use the expression "papers for signature" in your last answer?

A. Because I had the March 4th letter in my mind.

X Q. 168. When you saw that paper of March 4th, did you recognize it as a license or not?

A. I recognized it as a printed paper that we would not sign under any circumstances, or any other sane man, if he reads it.

(Question repeated.)

73 A. I could only think of it as a mere printed form; it had no signature; and as we already had a license, it struck me as a very singular affair.

X Q. 169. You did not know what it was, did you?

A. It read to me very much like a one-sided agreement, that they would naturally be very anxious for us to sign, as it would give them the power, by a few months' notice, of pushing us out of business and ruining us.

X Q. 170. Was this the first paper you ever received from M'r Tilghman through M'r Blake that seemed to require your signature or formal acceptance in writing?

A. It was the first paper I remember of having received from them asking for signature.

X Q. 171. Was there anything else that seemed to require your signature that you received from them?

A. There were printed forms for return, under their license, which we had to sign, and did sign.

X Q. 172. Did you expect that you were to receive these papers which you were to sign before you had received them?

A. I think M'r Blake did mention it when he was on.

X Q. 173. Did he tell you he would send you some papers to be signed by you when he was on?

A. I don't recollect of hearing of him telling us that any papers were to be signed; but he never spoke of any license or agreement that would have to be signed, nor in all his correspondence did he ever hint at such a thing to us.

X Q. 174. When was it that M'r Blake had this conversation with you?

A. I can't remember the date.

X Q. 175. Was it before or after the final agreement with M'r Tilghman?

A. After the agreement with M'r Tilghman.

Adjourned to Friday, April 9th, 1875, at 11 a. m.

74 FRIDAY, *April 9th*, 1875.

Present, counsel for complainant, Geo. Harding, esq.; for defendants, A. S. Letchworth, esq., and M. D. Connolly, esq.

X Q. 176. Referring to your answer 72d, state what were the improvements which you say you found they were copying from your machines and taking to their Boston and New York factories?

A. Copying the material we were using in our stencils.

X Q. 177. What was the material they copied from you?

A. As I have before stated, the material we were using in our stencils. Gum cloth, or rather the process in which we were cutting it out and fixing it on.

X Q. 178. State what proof you have for the statement that they were copying your process of cutting out and fixing on gum cloth as a stencil?

A. Because they were trying to get in our private room, picking up the articles, and asking our men questions, and at last got so annoying that when M'r Tilghman or M'r Blake came to our store, the boys were instructed to at once run to our factories and have everything placed away and covered over.

X Q. 179. When did you first forbid M'r Tilghman or M'r Blake access to your factories?

A. I cannot remember the date; it was after M'r Tilghman was taking our men off their work and experimenting on the machine at our loss.

X Q. 180. Was it before or after your final refusal to sign the license?

A. Indeed I cannot remember; I should say it was before that time—I should think it may have been some time in March.

Redirect examination by M. D. Connolly:

Q. 181. When you made the final and definite contract with M'r
75 Tilghman, in September, 1873, as already stated, or about that time, did you understand that M'r Blake was to send you anything in the nature of an agreement to be signed by you?

A. Positively no. He told us distinctly at the time we made the final agreement that it was not necessary for us to sign anything; that all the necessary papers would be sent on by M'r Blake before we commenced operations.

Q. 182. Did you regard the letters and papers of Oct. 30 and November 1st and 7th, 1873, Exhibits B and C, as the authority from M'r Blake, promised by M'r Tilghman?

A. We did; and so did they; as they received our royalties for months, and never in any way hinted in conversation or in their letters to us of any other agreement or paper of any kind till the one enclosed in the letter of March 4th, 1874.

Q. 183. Please state briefly what rates of royalties, and what articles were specified by M'r Tilghman when you made the definite and final agreement in 1873.

A. Rough globes, eight cents per dozen; cut globes, up to three dollars selling price, twelve cents per dozen, and over three dollars, twenty-four cents per dozen; these were all the royalties for the glass globe machine. One cent per foot for roughing flat glass, and fifteen cents per foot off the selling price above the cost of glass for ornamenting glass.

Q. 184. Was anything said by M'r Tilghman about an allowance of discount from these rates?

A. I don't remember anything said by M'r Tilghman.

Q. 185. Did the schedules sent by M'r Blake confirm or alter the statement of rates made by M'r Tilghman?

A. The papers sent by M'r Blake affirmed in every way the agreement made by us with M'r Tilghman.

Q. 186. What classes of work did you expect to operate upon at the time you made the agreement with M'r Tilghman?

A. On the articles named above in answer No. 183.

Q. 187. What classes of goods have you operated upon since you began using the sand-blast process? Please state specifically and in detail.

76 A. Glass globes, flat glass, ornamental glass, signs, and zinc.

Q. 288. Are the classes of goods you have operated upon with the sand-blast the same as or different from those the rates of which were stated to you by M'r Tilghman at the time you made the agreement with him, at or about September, 1873?

A. All but the article of zinc, which we did not get on the list of royalties till after we paid for the machines.

Q. 189. When you paid for the machines, in 1874, did you have any understanding as to a right to use the process?

A. Certainly. As M'r Blake again endorsed our schedule of royalties for same by adding "royalty on zinc."

Q. 190. How long was your license or authority to use the sand-blast process to continue?

A. As long as we paid royalty.

Q. 191. Did the complainant reserve the privilege of revoking it for any cause; if so, what?

A. He claimed the privilege of taking away the machines in case we did not pay the royalty, and for no other cause.

Q. 192. Did he claim the right to take away the machines, after you had paid for them?

A. No, sir.

Q. 193. After you had paid for the machines, did M'r Blake accept any royalties under the original agreement and schedule?

A. Yes, sir.

Q. 194. Please state for what period of time?

A. On April 10th, M'r Blake acknowledges the receipt of check for ninety-four dollars and sixty cents, for royalty up to April 1st.

Recross-examination by M'r Tilghman.

X Q. 195. Could the parts of the machines furnished you by complainant's agents be detached from the parts put up at your expense without the destruction of the whole machine?

A. No. It would destroy the entire usefulness of the machine for us.

77 X Q. 196. Were not the parts furnished by complainant so built in with the parts furnished by you that the separation of them would involve the pulling apart of the whole machine?

A. It would involve the destruction of our part, but not of their machines.

X Q. 197. Was it specified, in your agreement of September, that M'r Tilghman's, the complainant's, right to remove the machines should be confined to the removal of the parts furnished by him?

A. It was perfectly understood that they had the power to remove their own machines, if we did not pay the royalty.

X Q. 198. State fully and in detail all that was said at that time about the right to remove the machines.

A. It was agreed and understood between my partner, M'r John Letchworth, and myself and M'r Richard Tilghman, that the Sand Blast Company were to send us on three machines, they then giving us the authority or license to work them, and we were to work them under the sand-blast process, we paying a definite royalty, to be sent on by M'r Blake, with all the necessary papers, before we commenced operations; and that if we paid the royalties faithfully, we were to have the use of the machines and the process as long as we paid; and if we did not pay the royalties fairly, they had the power to come and take away their machines.

X Q. 199. Had they the right, under said agreement, to pull the machines to pieces, in order to take away parts furnished by them?

A. Of course they had, if we did not pay the royalties.

X Q. 200. Was anything then agreed about the manner in which they could ascertain whether the returns to be furnished by you of work done were correct?

A. It was understood that M'r Blake would send us the books or diaries to be placed alongside of our foreman, the royalties to be paid according to those books and schedule rates agreed upon. He was

78 to have the privilege of taking our oaths and looking over our books. I don't know whether he demanded it or not. I mean the oath of our foreman only.

X Q. 201. Did M'r Tilghman then agree to be satisfied with the oath of your foreman as to the correctness of your returns?

A. He did.

X Q. 202. Was this part of the final and definite agreement made in September?

A. Yes, sir; in September, or the early part of October.

X Q. 203. Why did you not mention it before as part of said agreement?

A. Because since talking the thing over here it has come more into my memory.

X Q. 204. Can you now recollect anything more of the details of said agreement which you have not already stated?

A. Just this moment I do not think of anything more.

X Q. 205. What books was M'r Blake to have the right to examine according to the agreement made with M'r Tilghman in September or October?

A. The books that were to be sent by M'r Blake previous to our commencing, as per our agreement with M'r Tilghman.

X Q. 206. Have you ever before stated that M'r Blake was to send on books?

A. I think I have; if not, I meant them when I said "etc."

X Q. 207. Under said agreement, were plaintiffs' agents to have access to your factories to ascertain the work you were doing?

A. It was never so understood by us.

X Q. 208. It was part of said agreement that the oath of your foreman as to the correctness of your returns was to be final and binding on both parties. Is that so?

A. M'r Tilghman stated that that would be satisfactory if he had the privilege of swearing the men—the foreman of our factory.

X Q. 209. And this part of said agreement you recollect this morning for the first time; is that so?

79 A. Certainly not the first time.

X Q. 210. When did you first recollect it?

A. I can't remember when I first recollected it; it came into my memory while we have been here this morning; as the conversation was so long since, it is hard to remember everything said at the time. Conversation on the matter brings these things into my memory.

X Q. 211. Referring to answers 193 and 194, was there a letter from M'r Blake accepting the royalties up to April 1st, 1874? If so, please identify such letter.

A. It was letter dated April 10th, 1874; defendant's Exhibit N.

X Q. 212. What did you understand by the expression in said letter, "I shall expect you to send me the two copies of license and agreement, signed by yourselves, on Saturday, the 11th inst., one of which I will return to you with my signature attached"?

A. I understood it as a trial on M'r Blake's side of persuading us to sign a new license or agreement, which we had positively refused to sign at the time we bought the machines.

X Q. 213. Did you make any reply to said letter?

I think not.

Adjourned to Tuesday, April 13th, 1875, to 10 o'clock a. m.

Redirect examination by M'r Connolly:

Q. 213. What became of the diaries furnished you by M'r Blake?

A. On receipt of them, I took them myself to our factories and gave one to each of our foremen, instructing them to be particular in putting down the amount of work of the machines daily; they are there and in use at the present time, and have never been from the hands of our foremen except at the first of each month for a short time, while we made out the statements to be sent to Gorham Blake.

THO'S R. HARTELL.

80 TUESDAY, *April 13th*, 1875.

Present, counsel for complainant, Horace Binney, 3d, esq.; for defendant, M. D. Connolly, esq.

JOHN LETCHWORTH, a witness for defendants, being duly affirmed, deposeth as follows:

Q. 214. Are you one of the defendants in this cause?

A. I am.

Q. 215. With whom was your contract to go into the Tilghman sand blast made?

A. With Richard A. Tilghman.

Q. 216. When was this arrangement with your firm and Richard A. Tilghman effected?

A. In the fall of 1873?

Q. 217. Where was the arrangement made, and who was present when it was made?

A. The final arrangement was made in our office, No. 15 North 5th street; M'r Richard A. Tilghman, my partner, M'r Hartell, and myself being present.

Q. 218. What sort of a contract or arrangement was made between your firm and M'r Tilghman at that time?

A. M'r Richard A. Tilghman, on behalf of the patentee, agreed with us at that interview that we should have the sand-blast machine furnished us and a fixed schedule of royalties furnished us, they retaining ownership in the machine; M'r Richard Tilghman at this interview repeatedly stating that they never sold the machine, but as long as the royalties were promptly paid and the parties evidenced energy in their management they would retain them—I mean that we who run them, or those using the machines should retain them.

Q. 219. Under this arrangement then made, was your firm to pay for the machines thus to be furnished you?

A. M'r Richard A. Tilghman, as I have before stated, repeatedly remarked that under no circumstances would they sell the machines.

81 M'r Tilghman stated further that by retaining ownership that if the parties using them did not not promptly pay their royalalties it would give them the right of repossessing themselves of the machines. He stated, moreover ——

(Question repeated, and witness requested to answer yes or no.)

A. No; certainly not.

Q. 220. How long was it agreed that you were to retain custody of the machines?

A. Till the patent expired, if we paid our royalty.

Q. 221. Under this arrangement, what was to be done by the "Tilghman Sand Blast" in case you failed to pay your royalties as agreed upon?

A. They could repossess themselves of the machines under such a contingency.

Q. 222. Were the rates of royalties settled at the time this arrangement was made?

A. They had been mentioned previously on several occasions; but at this interview they were expressly stated and agreed upon, and were, with a few slight exceptions, satisfactory to us.

Q. 223. What were the rates thus agreed upon at that time?

A. Firstly, for plain or frosted globes, one of our heaviest articles, eight cents per dozen; for ornamental globes under three dollars per dozen, twelve cents per dozen; for globes, ornamented, over three dollars, twenty-four cents per dozen; for boring holes under quarter of an inch in diameter one cent each, and each additional quarter of an inch in diameter one cent; on plain frosted glass one cent per foot, if roughed on both sides, an additional one cent per foot; for ornamental glass, fifteen per cent. of the price above the price of the glass. These rates were expressly mentioned, stipulated, and agreed upon by both parties at that interview.

Q. 224. At this interview were you informed by whom the machines were to be furnished?

A. M'r Richard A. Tilghman stated that he would advise M'r Gorham Blake to send us on the machines from Boston, where he represented they were made.

82 Q. 225. In what manner were you to make your returns of royalties?

A. M'r Richard A. Tilghman stated that he would direct M'r Gorham Blake to send us on these machines as soon as possible, and at the same time furnish us with blank forms and diaries for our workmen to keep our daily account of work in, which would be all that we would require to make our contract complete; and these blank forms were to be filled up monthly from the daily account of our workmen, from the diaries; and a check sent for the amount, less twenty per cent.

Q. 226. Were any means provided for verifying the monthly returns to be made by you?

A. In case of difficulty as between the parties for the accuracy of our returns, it was stated and agreed upon that our foreman, who had charge of these diaries, should be put on oath as to their truthfulness.

Q. 227. At that interview with M'r Tilghman, did he say he would send on any other papers or documents other than those you have already stated, viz, blank forms for returns and diaries?

A. I think there was no allusion or hint of anything, except what I have stated. I don't mean that there was nothing stated more than what I have stated. "I think," was not my expression.

Q. 228. Was anything then said about a written or printed schedule of royalties?

A. They were to come on; they were part of the agreement. They were to be furnished with the other papers and documents; such as M'r Tilghman had agreed should be furnished by Gorham Blake.

Q. 229. Was this agreement then made by M'r Tilghman reduced to writing?

A. Precisely as he made it; it was sent on by M'r Blake, and in no other way.

83 Q. 230. Were there any other writings fixing this agreement other than those to be sent on by M'r Blake?

A. Nothing whatever.

Q. 231. Was anything said, at that interview, about putting your contract in writing?

A. Yes; I suggested it to M'r Richard Tilghman—an article of agreement. He replied that it was not necessary at all; that the whole arrangement was a very simple one; that they would not sell the machine; and could, at any time, repossess themselves of it, if the royalties were not promptly paid.

Q. 232. Did you have any understanding, then, of receiving the machines for experimental purposes mentioned in complainant's bill in this cause?

A. No thought of such a thing, inasmuch as we ordered three machines at once.

Q. 233. Was it any part of your definite and final contract with M'r Tilghman that your firm was to have the exclusive right of Philadelphia?

A. The subject—the exclusive use of these machines in this city as well as in the whole State—was at this and at previous and subsequent interviews discussed with Richard A. Tilghman; and on all these occasions he stated that he was not willing to be bound in black and white to give us such an exclusive right, but that as long as we evidenced a disposition to work the machines energetically, that no other machine would be placed in this city or State. This we might depend upon.

Q. 234. Were the machines promised you, as above stated, by M'r Tilghman, furnished you by M'r Blake?

A. They were.

Q. 235. When were they received?

A. About the first of October, 1873.

Q. 236. Did the papers promised also come from M'r Blake?

A. They did, soon after the machines were sent us.

(Exhibits B and C shown witness.)

Q. 237. State if these are the documents referred to?

84 A. They are.

Q. 238. Did you receive the diaries and form-books for the foreman, as mentioned in your previous answer, from M'r Blake?

A. They all came in due course of mail.

Q. 239. Are those diaries with these exhibits now?

A. The diaries are not there.

Q. 240. Where are they?

A. At our factory, I presume.

Q. 241. Did you regard the papers thus received as the fulfilment of M'r Tilghman's promise that M'r Blake would send you the necessary diaries, schedules, forms, &c.?

A. The receipt of these documents included all that was promised or spoken of.

Q. 242. At the above interview with M'r Tilghman, was it settled when you were to begin the sand-blast business?

A. On the receipt of the machines.

Q. 243. Was it then settled when you were to receive the papers from M'r Blake?

A. At once; before we began operations.

Q. 244. Did you receive them before you began operations.

A. We did.

Q. 245. Did the schedule of royalties furnished by M'r Blake differ from or conform to the statement of rates made by M'r Tilghman at the time when your arrangement with him was settled, as already stated?

A. Yes; in every particular they conformed.

Q. 246. Before the machines were sent you, did you personally see M'r Blake in reference to them?

A. I did.

Q. 247. Please state when, where, and under what circumstances.

A. Prior to our final arrangement with M'r Richard A. Tilghman, he suggested that I should take our foreman and visit their estab-
85 lishment in New York, where these machines were in operation, to see their practical working, at this visit to New York. I went on to New York, in pursuance of this suggestion, with our foreman, W'm Lair, and inspected the machines in operation, and became satisfied that we could work them successfully.

Q. 248. Did you then and there see M'r Blake?

A. On this visit to New York M'r Richard A. Tilghman had given me a letter of introduction to M'r Blake; it was my first acquaintance with him; I saw M'r Blake. I related to him the arrangements that we had made with Richard A. Tilghman in relation to the sand-blast machine, to which he offered no dissent, but rather appeared to be pleased with the arrangement.

Q. 249. At what place did you see M'r Blake?

A. At his hotel—I don't remember which one—in New York, and at the rooms where the sand-blast machines were working, I believe on 28th street.

Q. 250. Did you on the occasion of this visit inspect the machines operating in New York?

A. I did.

Q. 251. With what result?

A. We were entirely satisfied.

Q. 252. When were the machines received by you from M'r Blake first ready for operation?

A. Towards the last of October, 1873.

Q. 258. Have they all continued to operate satisfactorily since that time?

A. The sheet-glass machine did not, and there was considerable time lost in putting it in running order.

Q. 259. Did you ever receive a bill for these machines from M'r Blake?

A. Yes. On November 12th.

Q. 260. Please examine Exhibit D, and state if that is the bill related to.

A. Yes. A letter from Gorham Blake dated November 12th, enclosing bill dated November 10th.

86 Q. 261. How did you regard and treat this bill?

A. In view of our understanding and agreement with M'r Tilghman, we supposed this bill to be a form they had chosen to fix the values in case of loss by fire or ortherwise. We therefore made no reply.

Q. 262. Was it after or before the receipt of this bill of November 10th that you made complaint of the unsatisfactory working of the flat-glass machine?

A. Afterward.

Q. 263. Has your firm paid any royalties to the Tilghman Sand Blast?

A. We have constantly—every month.

Q. 264. How were the returns for these royalties made up, and how made out?

A. Our foreman entered all the work done in the diaries—the amounts were copied on the blank forms furnished us by M'r Blake for that purpose.

Q. 265. To whom were these returns given or sent?

A. To Gorham Blake as agent of the Sand Blast Company.

Q. 266. Did you make any payments according to these returns?

A. We made payment once a month, as the agreement stated we should do; and these payments of royalties were acknowledged up to April, 1874.

Q. 267. Was your firm ever requested to sign a "license and agreement" the same or similar to that attached to complainants' bill?

A. Never until March 4th, 1874.

Q. 268. Please state briefly under what circumstances this document was first submitted to your firm.

A. It was received at our office while I was travelling in the South. I did not see it until my return towards the last of March, when it was handed me by my partner.

Q. 269. Did this license and agreement in any respect differ from your contract with M'r Tilghman?

87 A. It did in very essential points.

Q. 270. State in what respects it differed from your original agreement.

A. We were deprived of the twenty per cent. discount which we were allowed in our original agreement. This new license was accompanied by a bill in which the prices of the machines had been raised twenty-five dollars on each above the bill of November 10th, of which it purported to be a duplicate. We were requested to pay this amount and sign this new agreement, which, besides taking off the twenty per cent. discount which our first agreement allowed, which new agreement gave them the privilege and right to raise at their will, in a few months' notice, the royalties indefinitely.

Q. 271. How did you treat this letter and request of M'r Blake?

A. It was not replied to.

Q. 272. Did you receive any further communication from M'r Blake in regard to this same matter?

A. Another letter and agreement was received by my partner; the letter was dated March 25th, the agreement was dated December.

Q. 273. Did this second new license and agreement differ from the one that was received with M'r Blake's letter of March 4th?

A. Yes, it did; inasmuch as the last one deprived us of the benefits of any improvement which might be made or discovered in the sand-blast process.

Q. 274. When and by whom was your attention called to these documents, viz, the license and agreement forms now attached to M'r Blake's letter of March 4th and March 25th?

A. On the day of my return from my annual Southern trip; on the 28th of March, the first time I had ever seen or heard of this new agreement which M'r Blake had sent on.

Q. 275. By whom was your attention called to these documents?

88 A. By my partner.

Q. 276. Did you then, or subsequently, agree to accept this license and agreement?

A. I never entertained a thought of signing it.

Q. 277. Did you subsequently to your return receive any communication from M'r Blake in regard to that license and agreement, and in regard to paying for the machines?

A. A few days after my return, on the 3rd of April, M'r Blake called upon us in reference to the matter. We had a protracted interview,

which was adjourned to the next day, when he was again at our office, and we paid him for the machines, after he had deducted what he admitted to be an exorbitant overcharge. At this interview M'r Blake requested us to sign this new agreement, which we both positively declined to do. This declination on our part did not seem to affect our pleasant relations with M'r Blake, inasmuch as after we had paid for the machines and positively refused to sign the new agreement, he endorsed the old one by giving, at M'r Hartell's request, the price for frosting zinc, which had been neglected up to this time. This he wrote on the old schedule of royalties, which, of course it was understood, we were to continue to use.

Q. 278. Please look at Exhibit B and see if you can recognize the endorsement there made.

A. The words "zinc, ten cents per square foot," in purple ink, he wrote there at the close of this interview.

Q. 279. Look at Exhibit M and state if the bill attached thereto is the one then made out and receipted by M'r Blake?

A. This is the same one.

Q. 280. After this interview, did you have any further conferences or correspondence with M'r Blake in regard to the sand-blast business?

A. We sent them a check for our royalty for the previous month as usual, which they acknowledged on April 10th thereafter, and a letter, I believe, about April 25th, requesting us again to sign the new agreement.

89 Q. 281. Were you any time subsequent, as far as you recollect, requested to sign this new license and agreement?

A. We had a letter, I think, about May 1st, from M'r Blake, requesting us to please sign it if satisfactory.

Q. 282. Have your accounts for royalties been kept in accordance with your agreement with M'r Tilghman?

A. We have always sent a check; our accounts have been kept strictly and accurately.

Q. 283. Have your returns and payments conformed to these accounts?

A. Always, in every particular.

Cross-examination by M'r Tilghman.

X Q. 284. In the interview in New York with M'r Blake, as referred to in your 248th answer, state what you told him about your arrangement with M'r Tilghman.

A. I stated to him the agreement we had made with M'r Richard A. Tilghman. He offered no word of dissent.

X Q. 285. State fully and in detail all that you told M'r Blake about said agreement.

A. I related to him that M'r Richard A. Tilghman had agreed to furnish us with what sand-blast machines we required; have them put in Philadelphia, in our factory, we agreeing to run them, paying for their use a royalty, which was definitely fixed and settled at that time, with the express understanding that the Sand Blast Company would not sell their machines, but derive their whole compensation from royalties. To all this M'r Blake offered no objection, and indicated by his manner that he acquiesced in it. There was nothing further of any importance that occurred at this interview that I remember.

X Q. 286. What did you say to him about the papers he was to send on?

A. Not a word.

X Q. 287. Did he say anything to you about them?

A. Not that I remember.

90 X Q. 288. I understand that it was your agreement with M'r Tilghman that the papers to be furnished by M'r Blake were to contain the particulars of your definite and final license to work the sand-blast; is that so?

A. M'r Tilghman was to advise M'r Blake in regard to the arrangements he had completed with us; they were to be put in writing by M'r Blake and mailed to us before we went to work with the machines.

X Q. 289. In your said conversation with M'r Blake, did you inform him that your arrangement with M'r Tilghman was as you have just stated?

A. I stated to M'r Blake simply the arrangement I had made with Richard A. Tilghman; nothing was said by me in regard to any duties he was to perform.

X Q. 290. What was the date of said interview at New York?

A. Either the last of August or first of September.

X Q. 291. Did any discussion take place between you and M'r Blake at said interview about the terms of your license?

A. Not that I remember.

X Q. 292. Did you not take any pains to ascertain whether M'r Blake fully understood the terms of the agreement which he was to put in writing and mail to you?

A. Up to this interview we had always considered M'r Blake as a mere clerk of M'r Tilghman; and not knowing that he had any discretionary power, did not discuss the matter with him.

X Q. 293. How long was your interview with M'r Blake, and where did it take place?

A. I met him at his hotel, by appointment; went with him to a factory—if my memory serves me, on 28th street—in the upper story of which the sand-blast machines were in operation. M'r Blake explained the manner of manipulating the blast, and we, while there, examined minutely, with him, the whole process. My conversation with

91 him was in regard to the different uses and the manner of applying the sand-blast process. Probably our whole interview was within two hours.

X Q. 294. Did you ever have an interview with R. A. Tilghman in the Pennsylvania Railroad cars between Bryn Mawr and Philadelphia on the subject of a sand-blast license? If so, state when, and all the particulars.

A. I met M'r Richard A. Tilghman so frequently in the cars of the Pennsylvania Railroad Company, and have had so many conversations with him in regard to the sand-blast process—all prior to our final agreement in our office—that it would be impossible for me, travelling almost daily with him, to identify any particular interview, unless I am advised on some point that may help my memory.

X Q. 295. Did he ever, in said conversations, explain to you the points or details of the licenses previously granted by him to parties applying the sand-blast process to glass?

A. Up to a late point in the summer of 1873—the date I cannot exactly remember—M'r Richard A. Tilghman explained to me that the whole patent would probably pass into the hands of a company whose headquarters would be in Boston, and that he individually could grant no rights or furnish machines. About this time—I believe about the beginning of August—he went on to Boston, as he said, in a great hurry; and, as he afterwards stated to me, the party or company who had pro-

posed buying the whole patent were unable, or some or them, on account of a great fire there, of meeting their subscriptions. His visit was for the purpose of reinvesting himself with the title, and he was now prepared, having accomplished that, to furnish us with machines. I do not remember him explaining about the details of applying the sand-blast process to glass.

X Q. 296. Did he ever tell you that any parties were applying the sand-blast process to glass?

A. I have no doubt he did, but have no recollection of any individual.

92 X Q. 297. You were then thinking of working the process yourselves, were you not?

A. Yes; we were.

X Q. 298. Was it a matter of interest to you to know how many and what parties were already using said process, and upon what terms?

A. We knew of but one party; nor had we heard of any other party than M'r Nichols, of New York, outside of the patentee, or his company, who were using these machines. It would naturally be of interest to me.

X Q. 299. Did you make any inquiry of M'r Tilghman upon that point?

A. I have no doubt the matter was discussed at some of our interviews.

X Q. 300. Did you receive any information on the subject from M'r Tilghman?

A. I think it was M'r Tilghman who mentioned that M'r Nichols was experimenting with one of the machines; further than that I remember nothing.

X Q. 301. Do you mean to say that you never asked M'r Tilghman, nor did he tell you, anything about the terms or conditions upon which other glass manufacturers had their licenses prior to the date of your alleged agreement with him?

A. Prior to his visit to Boston to reinvest himself with the title he had stated that this company, when formed, would have an agency in every large commercial centre in the country; but after his return from Boston, having repossessed himself of the title, as he said, that he was prepared to negotiate on the terms which we ultimately accepted the machines upon.

Question repeated.

Knowing that there was not over one or two parties having the machines, the question was not raised. I don't remember whether I asked him or he told me anything about the terms or conditions upon which other glass manufacturers had their licenses.

93 X Q. 302. Then at the time you made said alleged agreement you did not know and did not care to ask whether the terms and agreement were twice as high as those charged to other parties in the same trade. Is that so?

A. We had the assurance of Richard A. Tilghman when the contract was made that when any other agreements should be made with other parties furnished with these machines they should pay the same schedule of royalties which we were furnished with.

X Q. 303. Was this a part of your said agreement with said Tilghman?

A. It was expressly stated at the time, and understood by us as a formal part of our agreement with him.

X Q. 304. Was it part of said agreement that if thereafter lower rates

of royalty should be charged to other licensees your rates should then be lowered to correspond with said lessened rates?

A. No. We had an express understanding when we made that contract with Richard A. Tilghman that our schedule of royalties should be unchangeable; otherwise, it would be impossible to do business. We stated to him that any change of royalties must never be thought of.

X Q. 305. I understand you then to say that under your alleged existing agreement you still remain bound to pay your present rates of royalty, even though licenses are granted to other manufacturers at half said rates. Is that so?

A. I can't say what we would do under such a contingency, which is not likely to arise.

X Q. 306. Is that your only answer to the question?

A. It is the most sensible one I can make in answer to question number 305. We are bound to pay the original rates.

X Q. 307. Did this stipulation, question 305, form a part of your alleged agreement?

A. It did, as we understood it.

X Q. 308. I understand you to say that the final and definite
94 agreement with M'r Tilghman had already been made at the time you saw M'r Blake in New York—as referred to in your 248th answer. Is that correct?

A. No. It was not accepted of at that time by us. My visit to New York was to ascertain whether it was practicable for us to accept the machines on the terms proposed. The contract was not consummated at that time.

X Q. 309. Have you any other corrections to make in your 248th answer?

(Question objected to as assuming that any correction has been made. Question withdrawn.)

Adjourned to Wednesday, April 14th, 1875, at 9.30 a. m.

WEDNESDAY, *April* 14, 1875.

Present, Horace Binney, 3d, esq., for complainant; M. D. Connolly, eq., for defendants.

X Q. 310. Referring to your answers number 284, 285, and 308, I understand you to say that the essential points of the agreement with M'r Tilghman had been settled between you and him previous to your interview with M'r Blake, but that the final acceptance of said contract by you took place subsequently; is that correct?

A. My answer is, a proposition had been made of the terms, subject to our option, embracing the essential points, as we understood them.

X Q. 311. When and where were these essential points settled between you and M'r Tilghman?

A. They were discussed at various times in the cars, and finally in our office, Richard A. Tilghman, my partner, and myself being present. This interview was after my visit to New York.

X Q. 312. Had the question of the right to change the royalties once in a year been discussed between you and M'r Tilghman in those interviews in the cars?

A. It had not, except on our part, or by our stating that any change of royalties would ruin us.

X Q. 313. Was this conversation in the cars?

95 A. In the cars and in our office. M'r Richard A. Tilghman always agreed with us in these interviews that it would not be

proper to make any change. That was the most essential point with us in accepting their proposition.

X Q. 314. By whom was this idea of the right to change the royalties suggested in your discussions in the cars?

A. By myself.

X Q. 315. What did M'r Tilghman say to it?

A. Always acquiesced in my view of it.

X Q. 316. What did you say to M'r Tilghman on this subject in the cars?

A. That if we took hold of the sand-blast machine we should of course get up a catalogue of goods, with price-list appended, which we would furnish to our customers; that the price to them of these goods, having been once fixed by this price-list, could not be afterwards raised.

X Q. 317. Are your successive price-lists always the same, as to the same articles?

A. Yes; ever since we have been in this business we have made no change.

X Q. 318. If you had to pay more for labor and materials, would you not be obliged to raise the prices of your goods?

A. If our goods cost us more than they do at present, we would, of course, be compelled to advance our prices.

X Q. 319. If the royalties had been raised to you and to other licensees in the same business, could you not have advanced your prices in like manner as last stated?

A. On the line of goods (gas globes) to which we most largely applied the sand-blast the price had been on a falling scale for ten years past, and consequently it would be almost impossible to have asked any advance in price; in fact it would have been impossible.

X Q. 320. In your alleged agreement with M'r Tilghman, was anything said about your right to use any future improvement on the sand-blast process?

A. No.

96 X Q. 321. Did M'r Tilghman offer to supply you with working drawings of the machines, in case you preferred to construct them yourself entirely, instead of getting parts of them from Boston?

A. No; never.

X Q. 322. I understand that you did construct, at your own expense, about two-thirds in value of the machines; is that so?

A. Yes; about that.

X Q. 323. Did you ever ask M'r Tilghman to repay you this expense?

A. We did not.

X Q. 324. Why not?

A. Inasmuch as M'r Tilghman had agreed to supply us with the machine, or the patented part, at his cost, we concluded to be at the other expense.

X Q. 325. Did M'r Tilghman state, or explain to you, what were the "machines, or patented parts," which he agreed to supply at his cost?

A. He agreed simply to supply the machines. The details were not mentioned.

X Q. 326. Then at the time you made said agreement you did not know how much of the machines were to be supplied at his cost, and how much at yours; is that so?

A. We did not know.

X Q. 327. It was optional then with M'r Tilghman to furnish as much or as little at his own cost as he chose; is that so?

A. He agreed to furnish us with three machines complete; beyond that we knew nothing; that is, the parts or portions necessary to run them successfully.

X Q. 328. Why, in the face of this agreement, did you furnish at your own cost two-thirds of said machines?

A. As we had made every preparation to go into the business, we concluded that sooner than have any controversy about it, we would bear the expense.

X Q. 329. When did you come to this conclusion?

97 A. When the question of paying for the machinery sent us from Boston was raised.

X Q. 330. Look at defendants' exhibits referring to said question, and state the date to which you refer.

(Exhibit D, November 10th, 1873; Exhibit I, March 4th, 1874; Exhibit L, March 25th, 1874, shown to witness.)

A. The first bill was dated November 10th, 1873; this we did not consider as raising the question; as I have stated in my previous testimony, these first demands for payment were regarded as merely fixing the value of the machines in case of loss. We paid our bill of expense for what we had furnished as soon as the workmen had completed it.

Re-examination by M'r Connolly:

Q. 331. When M'r Tilghman promised to furnish you with certain machines for the sand-blast, did you understand that these were to be complete or incomplete?

A. Complete.

Q. 332. Did he furnish you with complete machines?

A. He did not.

Q. 333. What was the character of the parts he supplied you with; were they general machinery, or parts peculiar, and only such as could be obtained from the patentee?

A. Only such as could be obtained from the patentee.

Q. 334. When did you consent to pay for these peculiar parts?

A. On April 4th, 1874.

Q. 335. What was the character of the parts supplied by yourselves?

A. Blowers, wook-work, frames, pulleys, lining, and all the other details.

Q. 336. When did you pay for these parts thus furnished by yourselves?

A. In 1873, when the work was done and the material supplied.

98 Q. 337. Before paying for these parts, did you have any understanding with M'r Tilghman or M'r Blake about paying for them?

A. No.

Q. 338. Referring to your answer to question 329, to what parts did you refer when you answered, "When the question of paying for the machinery sent us from Boston was raised"?

A. To those parts which were or could be supplied only by the patentee.

Q. 339. Please answer me when you came to the conclusion of paying for the parts furnished by yourselves and when did you come to the conclusion to pay for the parts furnished by M'r Tilghman?

A. In the fall of 1873 we concluded to pay for the parts furnished by ourselves; for the parts furnished by M'r Tilghman, in April, 1874.

Q. 340. What, then, did you mean by saying that you came to the conclusion to pay for the parts provided by yourselves, "when the ques-

tion of paying for the machines sent us from Boston was raised," as stated in your answer to question 329?

A. When we received that letter dated November 10th.

Q. 341. When was the question of paying for the machines sent you from Boston raised?

A. When a new agreement was sent on in March, 1874, the question was first seriously urged for our paying anything at all.

Q. 342. When did you pay for the parts furnished by yourselves?

A. In the fall of 1873.

Q. 343. When did you pay for the parts of the machines furnished by yourself—before or after the question was raised of paying for the parts sent you from Boston?

A. Before.

Q. 344. How long before?

A. Several months before.

Q. 345. When did you come to the conclusion to make these pay-
99 ments which you say were made "several months before," namely, the payments for the parts of the machine furnished by yourselves?

A. At the time they were put up, inasmuch as we did not expect to pay for the others, the patented part.

Q. 346. Did you consider the parts provided by yourselves as being patented parts of the sand-blast machine?

A. All of them, wholly and absolutely necessary to put the machines in running order.

Q. 347. Did you consider that M'r Tilghman's patent was a patent for a blower, for wood-work, frames, pulleys, lining, &c., being the parts you have specified as being provided by yourselves?

A. Certainly not.

Q. 348. To whom did you make payments for these parts furnished and put up by you—to M'r Tilghman or to M'r Blake, or to any outside party?

A. Well, I have answered that in two or three different ways, all meaning, however, the same thing.

Q. 349. Did you pay M'r Blake for the parts of machinery furnished by yourselves?

A. No; we did not.

Q. 350. Did you pay M'r Tilghman for the parts furnished by yourselves?

A. We did not.

Q. 351. Did you pay the Tilghman sand-blast, or any agent or attorney of that company, for the parts of machines furnished by yourselves?

A. No; we did not.

Q. 352. Did you pay anybody for the parts of machines furnished by yourselves?

A. Certainly.

Q. 353. Whom did you pay for the parts of machines furnished by yourselves? State, if you can remember.

A. I can't remember all of the parties, workmen and others, who put up and whom we employed to put up these machines.

100 Recross examination:

X Q. 354. Did you make an affidavit in the application for an injunction in this case?

A. (Objected to as not cross-examination.) Yes.

(The witness is shown paper marked "Exhibit Affidavit F," presumed to be a copy of the original affidavit filed by defendants at the hearing of the injunction.)

X Q. 355. Under your agreement with M'r Tilghman, was your license confined to the use of the three machines put up at your factories in Philadelphia?

A. Yes; our understanding with M'r Tilghman was, that our agreement for the use of these machines was to be confined to this city and State.

X Q. 356. Was your license to be confined to the use of those three machines?

A. Our agreement was for those three machines only.

X Q. 357. Under your said agreement with M'r Tilghman, had you the right to assign your licenses?

A. No.

X Q. 258. During you visit to New York, referred to in your 248th answer, did you visit M'r Nichols' sand blast globe works in New York?

A. I did.

X Q. 259. Was M'r Blake with you at M'r Nichols' works?

A. I went there alone; M'r Blake came in a few moments before I left.

X Q. 360. Do you know of the firm of Page & Harding, of Boston, glass manufacturers?

A. I have no acquaintance with them, have never seen them, but may have heard of them.

X Q. 361. Did you ever hear that they were using the sand-blast process?

A. I do not remember that I have.

101 X Q. 362. Referring to your 277th answer, respecting an additional charge in the bill for the machines when it was presented the second time, state whether, in the interval between November 10th and March 4th, additional expense had not been incurred by complainant in sending a workman from Boston to Philadelphia to put the flat-glass machine in satisfactory working order?

A. Yes.

X Q. 363. Had you any conversation with M'r Nichols about your intention to work the sand-blast process; and, if so, what was it?

A. I had. He stated that he had had a machine in operation for some time, and I asked him to be kind enough to show me some of his completed work. In reply he said that he had, after many months of trial, not been able to produce anything sufficiently perfect to put on the market, and that he had spent $30,000 in his endeavors to produce perfect work. I stated to him that we were about venturing into the same business, and that the relation of his experience was very discouraging. Finding that we were going to embark in the business, he seemed very anxious to dispose of his entire interest in it.

X Q. 364. Did M'r Nichols tell you that he had obtained a patent for methods of producing designs to be cut on globes by the sand-blast.

A. He stated that he had either procured or applied for some such patents.

JOHN LETCHWORTH.

102 I hereby certify that the foregoing testimony was taken at the times and place herein mentioned, and subscribed by the respective witnesses in my presence, said witnesses having been duly affirmed

before being examined. And that the exhibits herein mentioned were duly offered in evidence and marked by me, and hereto attached.

W. C. STRAWBRIDGE,
Examiner.

103 EXHIBITS.

A.

[Office of Tilghman's American Sand-Blast Company, No. 31 State street, room No. 5, Traveller Building.]

BOSTON, *Sept.* 25, 1873.

Mess'rs HARTELL & LETCHWORTH, Philadelphia:

GENTLEMEN: I am sorry to inform you that the glass machine was not shipped on yesterday, according to the notice I received from our men. In putting it into cases they found some part lacking. It will go to you as soon as all can be ready, at latest Saturday, the 27th inst.

I regret the delay, but it cannot be helped.

Yours, very respectfully,

GORHAM BLAKE, *Agent.*

B.

[Office of Tilghman's Sand-Blast, Gorham Blake, agent, No. 31 State street.]

N. YORK, *October* 30, 1873.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: I below name to you our schedule of royalties, and will send you printed list and returns as soon as I return to Boston:

104 Plain ground flat glass, 1 c't per f't.

Lace work, 20 per cent. on sales above selling price of glass.

Plain and flash glass signs, door and window lights, 15 per cent. on sales above selling price of glass.

Globes, plain, 8 c'ts per doz.

" ornamented, 1 c't each on those sold for less than $3 per doz.

" " 2 c'ts each on those sold for over $3 per doz.

20 per cent. off for payment before 5th of each month.

Very respectfully yours,

GORHAM BLAKE, *Agent.*

Tilghman's Sand-Blast.—Schedule of royalties.

Flat glass.—Plain ground per f't, one cent; two sides ground, two cents.
Lace work, 20 per cent. on sales above selling price of glass,
Plain and flash glass signs, door lights and window lights, 15 per cent. on sales as above.
Photographing, 15 per cent. on sales.
Boring, one cent per hole under $\frac{1}{4}$ in. and increase one cent per $\frac{1}{4}$ in. in diameter.
Block letters, 15 per cent. on sales.
Jewelry, silver plate, &c.

Round glass globes.—Plain, 8 c'ts per doz.
" ornamented, one cent each on those sold to $3.00 per dozen.
" ornamented, two cents each on those sold for over $3.00 per doz.

Zinc, ten cents per sq. f't.—(Written by M'r Blake, April 4, after we paid for machines. Mem. T. R. H.)
Bottles, 20 per cent. on bills.
Lamp-pegs, 15 per cent. on sales above selling price of stock.
Glassware, tumblers, goblets, &c., 20 per cent. on sales as above.
105 Stone lettering, 20 per cent. of usual price charged for hand work.
Incising, same as for lettering.
Countersinking, same as for lettering.
Miscellaneous.—Cleaning buildings.
Type letters, 20 per cent. on bills.
Millstones.
Seal work, agates, gems, &c., stone, 5 c'ts each; glass, 30 c'ts per gross.
Ivory organ stops, &c.
Cleaning castings.
Wood.
Cleaning castings, one-third present cost of cleaning castings.
20 per cent. discount on payment on or before 5th of each month.

GORHAM BLAKE, *Agent.*

BOSTON, *Nov.* 1, 1873.

C.

[Office of Tilghman's Sand-Blast, Gorham Blake, agent, No. 31 State street, room 5, Traveller Building.]

BOSTON, *Nov. 7th,* 1873.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: I send you to-day schedule of royalties, blanks to be filled up and return to me monthly with check, and sand-blast diary for convenience, to enter work done each day; we hang these with pencil by the side of each machine for workmen to use. Hoping your machines are running satisfactory, and to get large returns, I am,

Yours, respectfully,

GORHAM BLAKE, *Agent.*

106 *Account of quantity of glass cut by sand blast process.*

	Flat pain.	Flat, ground ornamented or lace.	Plain globes	Ornamented globes.	Bottles, &c.	Amount royalty.
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
31.						

GORHAM BLAKE,
Agent, Boston.

Above is a correct account of the quantity of glass treated by us during the month of , 187 , under your license to use your process, patented by B. C. Tilghman, Oct. 18, 1870.

Yours, &c.

187 -

107 *Tilghman's sand blast.*

Flat glass.—Plain ground, per foot, each side one cent.
Lace work, 20 per cent. on sales above selling price of glass.
Plain and flash-glass signs, door-lights, and window-lights, 15 per cent. on sales as above.
Photographing, 15 per cent. on sales.
Zinc-plates, 10 cents per square foot.
Boring, one cent per hole under $\frac{1}{4}$ inch, and increase one cent per $\frac{1}{4}$ inch diameter.

Block-letters, 15 per cent. on sales.
Jewelry, silver-plate, &c., by contract.
Round glass.—Globes, plain, 8 cents per dozen.
" ornamented, 1 cent each on those sold to $3 per dozen.
" " 2 cents each on those sold for over $3.00 per dozen.
Bottles, 20 per cent. on bills.
Lamp-pegs, 15 per cent. on sales above selling price of glass.
Glassware, tumblers, goblets, &c., 20 per cent. on sales as above.
Stone lettering.
Incising.
Countersinking.
Miscellaneous.—Cleaning buildings.
Type letters.
Millstones.
Seal work, agates, gems, &c.
Ivory organ-stops, &c.
Cleaning castings.
Wood.
20 per cent. discount on payment on or before 5th of each month.

GORHAM BLAKE, *Agent.*

31 State street, room 5, Traveller Building, Boston.

108 D.

[Office of Tilghman's Sand Blast, Gorham Blake, agent, No. 31 State street, room No. 5 Traveller building.]

BOSTON, *Nov.* 12*th*, 1873.

Mess'rs HARTELL & LETCHWORTH, Phila. :

GENTLEMEN : I enclose herein our account for machines, labor, &c. Hoping all is satisfactory, I remain, yours, very respectfully,

GORHAM BLAKE, *Agent.*

[Office of Tilghman's Sand Blast, Gorham Blake, agent, No 31 State street, room No. 5 Travellers Building.]

BOSTON, *Nov.* 10*th*, 1873.

Mess'rs Hartell & Letchworth, to B. C. Tilghman, D'r.

To flat glass machine, iron work	$225 00
" globe machine do do	225 00
" boring machine	50 00
" machinists' board, 42 days	67 50
" " work, 35 days	210 00
" " travelling expenses	20 50
	798 00

E.

[Office of Tilghman's Sand Blast, Gorham Blake, agent, 31 State street, room No. 5 Traveller Building.]

BOSTON, *Nov. 19th*, 1873.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: Your favor of the 15th inst. was rec'd this a. m. on my return from New York. M'r Hilton says he was so restricted he could not try the machine thoroughly before he left. If you will let me know what is the matter, I may be able to suggest a remedy. 109

Did you receive bill and package containing sand-blast books, blanks, &c.?

Please keep our sand-blast books in machine-room for the operator to put down all work done each day.

Very respectfully, yours,

GORHAM BLAKE, *Agent.*

F.

[Office of Tilghman's Sand Blast, Gorham Blake, agent, No. 31 State street, room No. 5 Traveller Building.]

BOSTON, *Dec. 6th*, 1873.

Mess'rs HARTELL & LETCHWORTH, *Philad'a:*

GENTLEMEN: Your favor with check for $38.66 is received. Please find herewith receipt for same. Thanks.

Very respectfully,

GORHAM BLAKE, *Agent.*

BOSTON, *Dec. 6th*, 1873.

Received of Hartell & Letchworth, thirty-eight $\frac{66}{100}$ dollars. Sand blast royalty for November.

GORHAM BLAKE, *Agent.*

G.

No. 577.] PHILADELPHIA, *Jan. 8th*, 1874.

National Bank of the Republic, pay to Gorham Blake, or order, fifty-three dollars.

$53.

HARTELL & LETCHWORTH.

(Endorsed by Gorham Blake, agent.)

H.

No. 587.] PHILADELPHIA, *Feb. 5th*, 1874.

National Bank of the Republic, pay to Gorham Blake, agent, or order, thirty-six $\frac{40}{100}$ dollars.

$36.40.

HARTELL & LETCHWORTH.

(Endorsed by Gorham Blake, agent.)

110 I.

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *March 4th*, 1874.

Mess'rs HARTELL & LETCHWORTH :

GENTLEMEN: I would respectfully call your attention to the enclosed bill for machines, &c., and would feel obliged to you for an early remittance; also the license and agreement signed, one of which please keep.

Very respectfully, yours,

GORHAM BLAKE, *Agent.*

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *October* , 1874.

Mess'rs Hartell & Letchworth, to B. C. Tilghman, Dr.

To flat-glass machine	$250 00
" globe machine	250 00
" boring "	50 00
" expense machinist, 42 days' board	67 50
" 35 days' work of do., at $6.00	210 00
" Travelling expenses of do	20 50
	$848 00

Received payment,

License No. 21.

This license and agreement, made the first day of December, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, of the first part, and Hartell & Letchworth, of Philadelphia, P'a, of the second part, witnesseth :

That the party of the first part, in consideration of one dollar to him paid by the said party of the second part, the receipt of which is
111 hereby acknowledged, and of the covenants hereinafter set forth, doth license the party of the second part to use the process and invention called the "sand-blast process," as described in the letters-patent of the United States, granted to said B. C. Tilghman on the 8th day of October, A. D. 1870, and also any improvements thereof for which letters-patent may be obtained by said Tilghman, or to which he may acquire title as assignee or licensee.

This license is granted upon the following terms and conditions, which the licensee covenants to keep and perform :

First. The said licensee hereby agrees to keep a detailed account, in a book provided by the licensor, of all work done by him or by any other person for him, or by the use in any way of the said "sand-blast process," which account shall specify the amount done each day on each variety of work specified in schedules to be furnished to said licensee by the licensor. And within the first five days of each month said licensee agrees to render to the licensor, his successor or assigns, said detailed account of all work done by him in the preceding month and at the same time pay the licensor, his successor or assigns, in cash for the same, according to the rates of license in force during the month

when the work is done. And whenever required by the licensor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said licensee, and to have free access at all times to the premises where the process is operated, for the purpose of verifying the returns aforesaid.

Second. The said licensee hereby agrees that he will not in any way contest the validity of any of the patents he is hereby licensed to use, or the validity of the title of the said licensor, or of his successors, legal representatives or assigns, to said patents, or any of them.

Third. This license shall not be assignable by the licensee.

Fourth. The said licensee is by this license authorized to use the process hereby licensed only in flat glass, globes, zinc, and boring glass.

112 Fifth. It is hereby agreed by the parties aforesaid that the rates of license shall be the same for all licensees; that the schedules of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished any time by the licensor giving written notice to all the licensees by mail, as hereinafter provided; that the schedule rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the licensor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the licensee before the first of July of the year preceding. And the deposit of said schedule in the post-office in Boston, addressed to the licensee at his post-office address, shall be held to be a delivery thereof to said licensee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the licensor, as above mentioned.

Sixth. In case the licensee shall fail to keep and perform any of the terms and conditions of this license, the licensor, his assigns and legal representatives may terminate and cancel the same, by giving to the licensee written notice of his election so to do.

Seventh. This license shall continue (provided the licensee observes all the terms and conditions thereof) during the full term of all the letters-patent aforesaid, held and to be held by the licensor, and all extensions and renewals thereof.

In witness whereof the parties have hereunto set their hands, the day and year aforesaid.

J.

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *March 9th*, 1874.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: Your favor enclosing check for $50.34 was duly
113 received for royalties for February. I have received no reply to my previous letter requesting remittance for amount our bill, and license and agreement.

Hoping you may find it convenient to answer soon, and that all is well, I remain, very truly, yours,

GORHAM BLAKE, *Agent.*

K.

NEW YORK, *March 7th*, 1874.

Mess'rs HARTELL & LETCHWORTH :

GENTLEMEN : Will you please send me one of your best patterns sample sand-blast globes, addressed to N. Y. Sand Blast Co., 81 Centre street, New York, and very much oblige,

Yours, respectfully,

GORHAM BLAKE, *Agent.*

L.

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *March 25th*, 1874.

Mess'rs HARTELL & LETCHWORTH :

GENTLEMEN : I herewith enclose you copy of schedule of royalties ; also license and agreement, as signed by all licensees. Will you please inform me as soon as your M'r Letchworth returns, and send remittance for amount our bill at earliest convenience, and very much oblige,

Yours, respectfully,

GORHAM BLAKE, *Agent.*

License No. 21.

This license and agreement, made the first day of December, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, of the first part, and Hartell & Letchworth, of Philadelphia, P'a, of the second part, witnesseth :

114 That the party of the first part, in consideration of one dollar to him paid by the said party of the second part, the receipt of which is hereby acknowledged, and of the covenants hereinafter set forth, doth license the party of the second part to use the process and invention called the "sand-blast process," as described in the letters-patent of the United States, granted to said B. C. Tilghman on the 8th day of October, A. D. 1870.

This license is granted upon the following terms and conditions, which the licensee covenants to keep and perform :

First. The said licensee hereby agrees to keep a detailed account, in a book provided by the licensor, of all work done by him, or by any other person for him, or by the use in any way of the said "sand-blast process ;" which account shall specify the amount done each day on each variety of work specified in schedules to be furnished to said licensee by the licensor. And within the first five days of each month, said licensee agrees to render to the licensor, his successors or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the licensor, his successor or assigns, in cash for the same, according to the rates of license in force during the month when the work is done ; and whenever required by the licensor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said licensee, and to have free access at all times to the premises where the process is operated, for the purpose of verifying the returns aforesaid.

Second. The said licensee hereby agrees that he will not, in any way,

contest the validity of any of the patents he is hereby licensed to use, or the validity of the title of the said licensor, or of his successor, legal representatives, or assigns, to said patents or any of them.

Third. This license shall not be assignable by the licensee.

115 Fourth. The said licensee is, by this license, authorised to use the process hereby licensed only in flat glass, globes, and boring glass, and grinding zinc.

Fifth. It is hereby agreed by the parties aforesaid, that the rates of license shall be the same for all licensees; that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished at any time by the licensor giving written notice to all the licensees by mail, as hereinafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the licensor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the licensee, before the first of July of the year preceding. And the deposit of said schedule in the post-office in Boston, addressed to the licensee at his post-office address, shall be held to be delivery thereof to said licensee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the licensor, as above mentioned.

Sixth. In case the licensee shall fail to keep and perform any of the terms and conditions of this license, the licensor, his assigns and legal representatives, may terminate and cancel the same, by giving to the licensee written notice of his election so to do.

Seventh. This license shall continue (provided the licensee observes all the terms and conditions thereof) during the full term of all the letters patent aforesaid, held and to be held by the licensor, and all extensions and renewals thereof.

In witness whereof the parties have hereunto set their hands, the day and year aforesaid.

(Endorsed on back of license:) Tilghman's sand-blast. License and agreement. Hartell & Letchworth, Philadelphia.

116 M.

PHILADELPHIA, *April 3d*, 1874.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: I have supplied you with a flat glass, globe and boring sand-blast machines to your order, which you have been running many months. The bills for same you have declined to pay. I have also sent you a license and agreement, such as is signed by other licensees, and which we require you to sign, if you desire to use the sand-blast process.

I have called on you several times for a settlement and your signature to the license, which you also decline. I will wait upon you to-morrow morning at 9½ o'clock, at your store, for a settlement in full, and your signature to the license. If you decline such, you will please cease to use the sand-blast process and machines, and consider this a notification to do so.

Very respectfully,

GORHAM BLAKE,
Gen'l Ag't T. Sand Blast.

BOSTON, *April 4th*, 1874.

Mess'rs Hartell & Letchworth to B. C. Tilghman, D'r.

Oct. 31, 1873.

To one flat-glass machine	$225 00
" one globe machine	225 00
" one boring machine	50 00
" labor of machinist, board and travelling expenses	298 00
	$798 00
Discount	149 00
	$649 00

Received payment.

B. C. TILGHMAN,
Per his Att'y, GORHAM BLAKE.

APRIL 4TH, '74.

117 No. 219.] PHILADELPHIA, *April 4th*, 1874.

City National Bank, pay to Gorham Blake or order, six hundred and forty-nine dollars.

$649.00. HARTELL & LETCHWORTH.

(Endorsed on back by Gorham Blake.)

[Stamp.]

N.

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *April 10th*, 1874.

Mess'rs HARTELL & LETCHWORTH, *Philad'a:*

GENTLEMEN: Your favor enclosing check for $94.60 is received, it being amount for your account of royalty to April 1st, 1874. I shall expect you to send me the two copies of license and agreement signed by yourselves, by Saturday, the 11th instant, one of which I will return to you with my signature attached.

Very respectfully, yours,

GORHAM BLAKE, *Agent.*

O.

PHILADELPHIA, *April 25th*, 1874.

Mess'rs HARTELL & LETCHWORTH:

GENTLEMEN: You will please take notice that the process of cutting or grinding glass by sand blast, now practiced by you, is an infringement of letters patent of the United States, granted to B. C. Tilghman, October 8th, 1870, and that you desist from its further use without my license.

Very respectfully,

B. C. TILGHMAN,
Per his attorney, GORHAM BLAKE.

118 P.

[Office of Tilghman's Sand Blast, Gorham Blake, general agent, No. 93 Federal street.]

BOSTON, *May* 1*st*, 1874.

Mess's HARTELL & LETCHWORTH, *Philad'a:*

SIRS: I herein enclose to you a copy of our license and agreement, the same as I handed your M'r Hartell to sign (excepting my signature to this), when last in your city, April 25th. If satisfactory, please sign and forward to me, and I will send you duplicate with my signature attached.

Respectfully,

B. C. TILGHMAN,
Per his attorney, GORHAM BLAKE.

S.

Defendants' other exhibits, marked "S," are monthly returns, letters forwarding same with checks, post office receipts for same, &c., &c., all relating to royalties forwarded since May, 1874.

119 In the circuit court of the United States in and for the eastern district of Pennsylvania, Oct. sess. 1874. In equity.

BENJAMIN C. TILGHAMAN
vs.
THOMAS R. HARTELL AND JOHN LETCHWORTH. } No. 41.

It is hereby stipulated by and between the above named parties that the deposition of Gorham Blake may be sworn to before any magistrate or notary public in the city of Philadelphia, and read at the hearing of the cause with the same effect as though it had been taken by and sworn to before the special examiner.

GEORGE HARDING,
Solicitor and Counsel for Complainant.
M. DAN'L CONNOLLY,
Solicitor for Defendants.

120 In the circuit court of the United States in and for the eastern district of Pennsylvania, Oct. term, 1874. In equity.

BENJAMIN C. TILGHMAN
vs.
THOMAS R. HARTELL AND JOHN LETCHWORTH. } No. 41.

Evidence offered and testimony taken on behalf of the complainant at the office of George Harding, esq., No. 900 Chestnut street, Philadelphia, this 21st day of April, 1875, at p. m.

Present: the complainant in propria persona, and M. D. Connolly, esq., and Albert S. Letchworth, esq., for defendants.

GORHAM BLAKE, a witness for complainant, in answer to interrogatories by the complainant, testified as follows:

Q. 1. What position do you hold with reference to complainant?

A. General business agent for the sand-blast business?

Q. 2. Did you see M'r Letchworth, one of the defendants, in New

York City, in the year 1873? If so, state when, and where, and what passed between you.

A. I did see Mr Letchworth, about the 28th or 29th of August, 1873, at Mr Nichols' factory; he asked me "On what terms can we use the sand-blast?" I asked him, in reply to that, "What arrangement have you made with Mr Tilghman, and what did he say?" Mr Letchworth replied, "I have made no arrangement with him; he referred me to you, as the business agent, to attend to the business matters." He asked, "What are the cost of the machines and the terms of royalty and
1221 license?" I told him, "the cost of the machines, the parts which we would furnish, would be about $600, the license would be the same as signed by other parties now using the machines and process." He asked, "what other parties were using it?" I told him, "the Hemmingray Co., of Cincinnati, and Paige, Harding & Co., of Boston." I told him the license would be the same as signed by those parties. He said it was perfectly satisfactory if he had the same chance on terms as the others; he did not want any one to have any better terms than he had. There was some other immaterial conversation, but I don't remember anything important.

Q. 43. Has said conversation was anything said about the contract under which Mr Nichols was working; if so, what?

A. There was; I told Mr Letchworth Mr Nichols had a contract made before I had anything to do with the sand-blast; that it was a separate and distinct matter, and not to be taken into consideration.

Q. 44. Did you afterwards send too many machinery from Boston to the defendants in Philadelphia? If so, describe generally its nature.

A. I did send parts of a glass machine and globe machine; they were the essential running parts, made of iron and wood.

Q. 45. Did you subsequently see Mr Harrell, the defendant, in Philadelphia? If so, state what passed between you at your first interview, and about when it was.

A. It was about the time the machines were being erected; Mr Harrell asked me on what terms the sand-blast could be used. I told him, on the same terms that others were using it; that there was a license and agreement to be signed like others that were using it, and a list of royalties that I would send him. He spoke of the prices of royalties which I named as near as I could remember, and the terms of license, the increase, after six months' notice, of the royalties, if we, the
1222 Sand Blast Co., so elected. There was some argument about that, but he seemed satisfied as other parties using the sand-blast had signed the same license. There was something said about licensing other parties in Philadelphia. I told him it was not our policy to license a machine to run against him in the same city; as long as he pushed the business or did the business in Philadelphia energetically and strictly complied with the terms of the license we would not want to put up another machine. I think I should add in that, "if all went satisfactory."

Q. 46. In this interview did you mention to Mr Harrell what parties else there were using the sand-blast process under the kind of license he was to have?

A. I did; named Hemmingray Glass Co., of Cincinnati, and Paige, Harding & Co., of Boston; they had been using it since July previous.

Q. 47. Did you subsequently to this interview, and, if so, how soon after, send Mr Harrell a written memorandum of the rates of royalty?

A. I think I sent him a list or schedule of royalties in letter form from New York—the next day, I think.

(Defendants' Exhibit B shown witness, and identified as his handwriting.)

Q. 8. Look at the paper now produced, marked complainant's Exhibit No. 1 (admitted as a letter from defendants), and state whether you received it in due course of mail?

A. I received this in due course of mail.

Q. 9. What did you do in consequence?

A. I answered the letter and wrote to M'r R. A. Tilghman, and sent a man to Philadelphia to repair the flat glass machine, which was the one referred to in the letter—to repair the difficulty.

Q. 10. Look at the paper now produced, marked complainant's Exhibit No. 2, and state whether or not it is a copy of the license granted to the Hemmingray Glass Co., of Cincinnati, as referred to in your sixth answer.

123 A. Yes, sir; I believe it to be an exact copy.

Q. 11. Look at the paper now produced, marked "Complainant's Exhibit No. 3," and state whether or not it is a copy of the license granted to Page, Harding & Co., of Boston, as referred to in said answer.

A. I think it is an exact copy.

Q. 12. What other parties, if any, were working the sand-blast process under licenses similar to the above prior to October, 1873?

A. Luther & Co., of Providence, R. I., lapidaries, and John Morrow, Providence, R. I., lapidaries.

Q. 13. Did you see the defendants, or either of them, in Philadelphia, at any time between the interview referred to in your fifth answer and March 4th, 1874? If so, state what occurred.

A. Yes, sir; there was general conversation with them, or one of them, at their store. M'r Hartell expressed satisfaction with the running of the globe machine, also general satisfaction with the business, as it was started in globes. I spoke of the license and agreement, and the bill for the part of the machinery that we supplied; he said that we will attend to that when the flat-glass machine is in good order; there was some other conversation about general matters, but I don't remember anything important; it seemed to be generally understood between us in all the conversations we had previous to this, and at this time, that the bill for machinery was to be paid when my part was completed and the machines in good running order, and the license was to be signed at the time the machines were completed.

Q. 14. Had this been the practice with other licensees in the glass business, for the patentee to put the machinery in good working order before having it paid for or the license signed?

124 A. It was. All machines were put up in good running order before the license was given, or bill presented for the same.

Q. 15. In your foregoing answer, do you refer to the whole of the machines, or only special parts furnished by the patentee, similar to those furnished to defendants?

A. I mean the running parts similar to those furnished to (by) the defendants.

Q. 16. Did the Hemmingray Co. of Cincinnati, and Page, Harding & Co. of Boston, repay the patentee for the parts of the machinery furnished by him?

A. I can't answer that question. I do not know, for the reason that the machines were put up before I was agent for the sand-blast.

Q. 17. What other interviews had you with either of defendants subsequent to March 4th, 1874, and state what occurred thereat.

A. I don't remember particularly. I think the conversation that I had with them during the interviews previous to April 3d were satisfactory, so far as the business was concerned; no serious objection was made to the license being signed or the bill paid; the dates of those interviews I do not remember.

Q. 18. State what occurred at the interview of April 3d, '74.

A. I called to the store and found M'r Letchworth and M'r Hartell present, and presented the license to be signed, and bill for payment; they declined to pay the bill that day; said they never expected to be called upon to pay for the machines, and declined to sign the license. We had a long conversation on the subject, the whole of which I do not remember. I remember now that I had a previous conversation some time before; when I called to get the license signed and bill paid, M'r Hartell said he had not seen any papers, license or bill; M'r Letchworth had them locked up, and he had gone South, and would not return
125 for two weeks; that he would attend to it as soon as M'r Letchworth got back. I asked him to send me a check and the license signed. He said, "Yes, I will." That interview was previous to April 3d. After the interview of April 3d, I went to the hotel and wrote them a letter, Defendants' Exhibit M. April 4th, the morning of April 4th, I called at Hartell and Letchworth's store, asked them if they had received my letter of the evening previous; they said they had. I asked, "What is your decision?" They said they wanted the matter settled up, and would pay me $500, the amount of the bill being $798. I agreed to split the difference or make a discount of $149. They gave me a check for $649. I then asked them to sign the license; they objected, saying they wanted to consult M'r Letchworth's brother, their lawyer, who was then away. I asked how long a time they needed to consult him; they said a day or two, and would send the license by the next Saturday to me at Boston. I told him I would expect it, and left.

Q. 19. Did you ever sign or execute, or offer to defendants to execute any license to use the sand-blast process other than those on the printed form marked Defendants' Exhibits I and L?

A. I did not.

Adjourned till to-morrow, at 11 o'clock.

OFFICE OF GEORGE HARDING, ESQ.,
900 *Chestnut Street, Phila., April 22d*, 1875.

Examination of Gorham Blake, by the complainant, continued:

Q. 20. Referring to your 16th answer, state whether you have any, and what information, as to whether the Hemmingray Glass Com-
126 pany, of Cincinnati, and Page, Harding & Co., of Boston, repaid the patentee for the parts of machinery furnished them by him?

(Objected to by M'r Connolly as not evidence under the pleadings in this case. Witness is also requested to state only what he knows of his own knowledge, and not mere hearsay.)

A. M'r Page, of Page, Harding & Co., told me he had paid for them. M'r Hemmingray, of Hemmingray Glass Company, told me he had paid for their machines.

Q. 21. Did M'r Page show you any bills or papers referring to said payment?

A. He did; he showed me what he said were all the bills.

Q. 22. State what number of globes the Hemmingray Glass Company have made returns to you, as worked under their license, between September, '73, and March, '75.

(Objected to as incompetent under the pleadings, by M'r Connolly.)

A. As near as I can remember, a little over 100,000 globes.

Q. 23. State about how many square feet of glass Page, Harding & Co., of Boston, have worked under their license up to this date?

(Objected to as incompetent under the pleadings, by M'r Connolly.)

A. I do not remember, but think several hundred thousand.

Q. 24. Have these parties paid their rates of royalty?

A. They have.

Q. 25. Has the right reserved to the patentee in the licenses to Hemmingray Glass Co., and Page, Harding & Co., to increase the rates of royalty once a year upon six months' notice been exercised by the patentee? And, if so, state as to what articles, and to what extent, and when.

127 A. It has. Notice was given before the first of July, 1874, of a change of royalties, to take effect Jan. 1st, 1875. On flat-glass lace work a change was made from 20 per cent. on sales above selling price of glass to 20c. per foot. On plain and flash glass signs, door-lights, and window-lights, 30c. per foot, instead of 15 per cent. on sales above selling price of glass. On photographing, instead of 15 per cent. on sales, it was made 50 cents per foot. On block letters, instead of 15 per cent. on sales, it was made 5 cents per inch per letter. On bottles, instead of 20 per cent. on bills, it was made one and a half cents each. On lamp-pegs, instead of 15 per cent. on sales above selling price of stock, it was made one and a half cents each. On glassware, tumblers, goblets, &c., instead of 20 per cent. on sales above selling-price of stock, it was made one and a half cents each.

Q. 26. Have the Hemmingray Co., and Page, Harding & Co., made returns and payments under this new schedule of rates?

A. They have since January 1st, three months' returns.

Q. 27. Were the rates of royalty named in the schedule sent by you to defendants in 1873 the same as or different from the rates charged to and paid by the Hemmingray Co., and Page, Harding & Co., on the same articles at the same time?

A. They were the same.

Q. 28. In your conversation with M'r Letchworth, at Nichols', in New York, did he seem to be already acquainted with the general nature of the licenses granted to other licensees at that time?

A. He did; and said M'r R. A. Tilghman had explained to him the terms; that the right reserved to raise the royalties was hard, or that he did not like it, or something of that kind.

(Witness being here interrogated as to whether he had written his answer before making it, replies, "Yes." Objected to by M'r Letchworth as irregular and improper. At the request of the complain-

128 ant it is also noted that this objection was not made until after the answer had, in response to the question, been written and read to the witness. To which M'r Letchworth replies, that until the witness had made his answer he did not know what the witness was doing.)

But if the other licenses were the same he could not object to it. This may not be the exact phraseology of his conversation, but, as near as I can remember, it is the sense of it.

Q. 29. Was the total amount received by you from defendants, in payment for the parts of machines furnished by the patentee, more or less than the amount expended by the patentee for the said parts, and the cost of putting them up?

A. I think they cost the patentee from one hundred and fifty to two

hundred dollars more than I received from the defendants. I charged for the machinery, by instruction from M'r R. A. Tilghman, as near as possible, the cost price, not wishing to make anything on the machinery supplied.

Cross-examination of Gorham Blake by Mess'rs Letchworth and Connolly:

X Q. 1. Where do you reside?

A. Boston, Massachusetts.

X Q. 2. How long have you been the agent of the sand-blast business?

A. Since about the 1st of July, 1873.

X Q. 3. What do you mean by the sand-blast business?

A. The sand-blast is a method of blowing sand against glass or stone, or other material, for the purpose of etching or cutting the same. The business is the licensing the process, collecting royalties, superintending the construction of machinery, keeping the necessary books, accounts, &c.

X Q 4. Who employed you as a general agent of that business?

A. B. C. Tilghman, by his attorney, R. A. Tilghman.

129 X Q. 5. M'r B. C. Tilghman was the patentee of the process and machinery under which this business was carried on, was he not?

A. Yes, sir; excepting machinery.

X Q. 6. Was he the sole proprietor at that time of the patents mentioned in complainants's bill?

A. I think he was.

X Q. 7. And remains so to the present time?

A. I think so.

X Q. 8. Where did you first see M'r Letchworth, one of the defendants?

A. I think at M'r Nichols' factory, in New York.

X Q. 9. How did you become acquainted with him?

A. I do not remember whether he introduced himself to me or M'r Nichols introduced me.

X Q. 10. Did he not bring you a letter of introduction from M'r R. A. Tilghman?

A. I do not remember.

X Q. 11. Did you not first see M'r Letchworth at a hotel in New York?

A. I do not remember that I did.

X Q. 12. Did you not go from a hotel, on this day, in New York, with M'r Letchworth and another gentleman, to another factory in New York, not M'r Nichols', before you met M'r Letchworth at M'r Nichols' factory?

A. I think not; I do not remember that I did.

X Q. 13. Was there not, at that time, another factory in New York, at which the sand-blast business was carried on beside M'r Nichols'?

A. There was.

X Q. 14. Where?

A. In Twenty-eighth street.

X Q. 15. Do you say that you did not go to that factory in Twenty-eighth street with M'r Letchworth on that day, or meet him there on that day?

A. I do not remember it; I think not.

130 X Q. 16. Did not M'r Letchworth introduce to you, or in some way bring to your notice, his foreman, M'r Lair, who was with him?

A. I do not remember.

X Q. 17. Do I understand you to say that all the conversation you had with M'r Letchworth in New York took place at M'r Nichols' factory at that time?

A. I cannot recall any other.

X Q. 18. Was M'r Nichols' factory the only place you saw or met with M'r Letchworth at that time?

A. I do not remember any other.

X Q. 19. Do you mean to say that you did not?

A. I do not remember any other.

X Q. 20. Will you swear that you did not first meet him at a hotel, go with him from that hotel to the factory in Twenty-eighth street, in company with M'r Hilton and M'r Lair, before you saw him at M'r Nichols' factory?

A. I cannot recall any such meeting.

X Q. 21. What time in the day was it when you met him at M'r Nichols' factory?

A. About nine o'clock in the morning, I think.

X Q. 22. Who was present at the interview at M'r Nichols' factory during the conversation which you have detailed?

A. M'r Letchworth and M'r Nichols; I think M'r Hilton was there; I am not sure; and myself.

X Q. 23. How long did that interview last?

(Witness asks "Do you mean the whole time I was there?" M'r Letchworth replies: "The whole time of the conversation with M'r Letchworth, the defendant.")

A. it may have been ten or fifteen minutes.

X Q. 24. That, you say, was all the conversation you had with M'r Letchworth in New York at that time?

A. That is all that I remember.

X Q. 25. Did M'r Letchworth come there as a stranger?

A. He was to me.

131 X Q. 26. Did you find M'r Letchworth in M'r Nichols' factory when you got there?

A. I did.

X Q. 27. And was that the first time you had ever seen him?

A. I think it was; I cannot recall any other time.

X Q. 28. Did you show M'r Letchworth, at that time, the papers, or copies of them, which you call the licenses to Hemmingray & Co., and Page, Harding & Co.?

A. No, I think not.

X Q. 29. Had you these two papers (Complainant's Exhibits 2 and 3 shown witness) in your possession at the time of your conversation with M'r Letchworth in New York?

A. No, sir; I had not.

X Q. 30. Were those two papers then in existence?

A. They were; I mean that the originals of these papers were in existence.

X Q. 31. Are these two papers copies of the originals?

A. I think they are exact copies; one of them was made by myself.

X Q. 32. These papers were executed by you as the agent of B. C. Tilghman?

A. They were.

X Q. 33. Were they executed on the day they bear date?

A. They were not; they were executed, sir, some time after.

X Q. 34. About how long after?

A. I do not remember how long after.

X Q. 35. Will you tell me why they were antedated?

A. The machinery and process were used by Page, Harding & Co., and Hemmingray Glass Co., previous to July 1st, the date of the documents. I took charge of the business about that time; they were, the documents were, dated July 1st by agreement.

X Q. 36. When were they executed?

132 A. I do not remember the dates without referring to memoranda.

X Q. 37. About what time was it; can you give no idea?

A. I cannot tell.

X Q. 38. Have you memoranda by which you can tell?

A. I am not sure that I have it here in Philadelphia.

X Q. 39. Are you sure that you haven't it here?

A. I cannot tell without examining my papers.

X Q. 40. Will you examine your papers and give me a positive answer to that question?

A. I will examine my papers; I cannot tell whether I can give a positive answer until I see them.

X Q. 41. Were both these papers signed at the same time by you?

A. They were not; one was signed in Boston and one in Cincinnati.

X Q. 42. Was that before or after your interview with M'r Letchworth in New York?

A. I do not remember; I do not remember when these papers were signed.

X Q. 43. Was it before or after you had furnished the machines to the defendants?

A. As I have before stated, I do not remember the date these papers were signed.

X Q. 44. I notice these papers, Exhibits 2 and 3, are marked license No. 7, and license No. 9, respectively; will you tell me how many forms of license you have?

A. I don't remember now.

X Q. 45. There are at least nine different forms, are there not?

A. No, sir; I think not.

X Q. 46. What do those numbers nine and seven on those papers mean?

A. They mean the number of the respective license; that is, those are the number of those particular licenses.

X Q. 47. They do not refer, then, to the form of the license at all?

133 A. No, sir.

X Q. 48. (Defendant's Exhibit I shown witness.) Is that the same form as those we have been speaking of to Hemmingray & Co., and Page, Harding & Co.?

A. No, sir; it is different in some respects.

X Q. 49. This letter, forming part of Exhibit I, and the bill are in your handwriting?

A. Yes, they are.

X Q. 50. In the license to Page, Harding & Co. I notice these words written after the attesting clause: "The above lease and agreement is subject to agreement signed by B. C. Tilghman, February 27th, 1873"; will you explain to us what those words mean?

A. It was an agreement signed by B. C. Tilghman about business I was not familiar with, which I thought had no connection with the

license, and the interlining was made at Page, Harding & Co's request.

X Q. 51. Did you mention to M'r Letchworth a special agreement with Page, Harding & Co.?

A. I mentioned to him that Page, Harding & Co. had a license to use the sand-blast.

X Q. 52. Question 51 repeated.

A. The license is the only agreement that I mentioned to him.

X Q. 53. You did not mention to him, then, the special agreement made with B. C. Tilghman, February 27th, 1873, and Page, Harding & Co.?

A. I did not.

X Q. 54. At that time did you know of a special agreement with Page, Harding & Co.?

A. I may have known it; I think I did.

X Q. 55. Where is that agreement, sir?

A. I presume Page, Harding & Co. have it.

X Q. 56. Haven't you got it?

A. I have not.

(Complainant offers to produce a copy of said agreement as soon as it can be obtained.)

134 X Q. 57. Did you state to M'r Letchworth, at that interview in York, what your agreement with M'r Nichols was?

A. I did not.

X Q. 58. At your interview with M'r Letchworth in New York, did you know the terms of the agreement with Page, Harding & Co. of February 27th, 1873?

A. I do not remember the date that I became aware of it.

X Q. 59. Do you mean to say that you did or did not know of it?

A. I do not remember the date that I became aware of the existence of that agreement.

X Q. 60. You cannot, therefore, tell whether it was before or after your interview with M'r Letchworth?

A. No, sir.

X Q. 61. Had Hemmingray & Co. or Page, Harding & Co. paid for the machines when they signed those respective agreements?

A. They told me they had.

X Q. 62. Both of these papers say, that the party of the first part doth lease unto the party of the second part, &c.; if they had paid for the machines, what does that word lease mean in the agreement?

(Objected to by M'r Tilghman as calling upon the witness to give a legal interpretation of a written instrument.)

A. It is explained further on in the lease, I think. I will offer this paper (Complainant's Exhibit No. 2) as my answer.

X Q. 63. Have you ever issued two licenses to different parties that were exactly alike?

A. I have intended to.

X Q. 64. Do you mean to say you have or have not?

A. I have intended to.

X Q. 65. But never have, I presume?

A. I think I have.

135 X Q. 66. Will you produce any two licenses issued by you to different parties which are exactly alike in all their terms and provisions.

A. I think I can.

X Q. 67. Will you please do so?

A. I will try.

(Complainant offers to produce copies of all licenses heretofore granted.)

(M'r Letchworth accepts the offer.)

X Q. 68. In answer to the second interrogatory in chief, do you say that you told M'r Letchworth that "the license would be the same as signed by other parties now using the machines and process. He asked what other parties were using it; I told him Hemmingray & Co., of Cincinnati, and Page, Harding & Co., Boston; I told him the license would be the same as signed by those parties." Have you ever offered to the defendants such a license as that signed by Hemmingray & Co., or as that signed by Page, Harding & Co.?

A. I offered them a license essentially the same, the wording may not have been exactly the same.

X Q. 69. (Defendants' Exhibit I shown witness.) That is the first license which you sent or offered to the defendant, is it not?

A. I think it is.

X Q. 70. (Defendants' Exhibit L shown witness.) That is the second one you offered them, is it not?

A. I think so.

X Q. 71. Do you mean to say that either of those papers are exactly or even substantially like the licenses to Hemmingray, and Page, Harding & Co.?

A. The wording is not exactly alike.

X Q. 72. Are not the second and third clauses in Complainant's Exhibits 2 and 3, on the second page, totally omitted in the license sent to defendants?

A. The exact words are.

136 X Q. 73. In the licenses sent to defendants, there is nothing about leasing a machine, is there?

A. I presented a license to M'r Hartell, in which the printed matter was the same as the printed matter in Page, Harding & Co's, and Hemmingray Glass Co's license.

X Q. 74. Do you mean to say that you presented them any other, or different papers, purporting to be licenses, other than the two papers, Defendants' Exhibits I and L?

A. I did, at an interview with M'r Tilghman and M'r Hartell, at M'r Hartell and Letchworth's store. I think it was the last interview I had with M'r Hartell.

X Q. 75. What was it you presented them?

A. A printed license and agreement exactly like the printed license and agreement signed by Page, Harding & Co. and Hemmingray Glass Company.

X Q. 76. Was that another and a different paper from Defendants' Exhibits I and L?

A. It was.

X Q. 77. Where is that paper, sir?

A. I do not know where the identical paper is; I can produce one like it.

X Q. 78. Which one of the two papers was it like, that of Hemingray's or that of Page, Harding & Co's?

A. It was a printed form in blank, printed at the same time, with the same wording as the printed matter in Hemmingray Co's, and Page, Harding & Co's licenses.

X Q. 79. But without the written matter, you mean, then?

A. But without the written matter.

X Q. 80. When was this?

A. I do not remember the exact date.

X Q. 81. Was it before or after the defendants had paid you for the machines?

A. I think it was after.

137 X Q. 82. Question 19th of your examination-in-chief is: "Did you ever sign or execute, or offer to defendants to execute, any license to use the sand-blast process, other than those on the printed forms marked Defendants' Exhibits I and L," to which you reply, "I did not"; how do you reconcile that answer with your answer to cross-question 74?

A. The license to use the sand-blast process is essentially the same in both papers.

X Q. 83. You have stated that you think this interview was after the machines had been paid for; do you mean to say that you tendered to the defendants at that time a lease or license containing these words, which I read from Page, Harding & Co's lease: "And the said lessee shall thereupon, if he has kept all the conditions of this lease and license, have the right to purchase said machine for the sum of one dollar"?

A. The printed portion of the license was precisely the same in the paper I presented to M'r Hartell as the printed portions in Page & Harding's license.

X Q. 84. Question 83 repeated.

A. I did.

X Q. 85. You then deliberately proposed to defendants, at that interview, some time after they had paid for the machines, the privilege of purchasing the same machines over again for the sum of one dollar, upon the expiration of the letters patent?

A. I did; the same proposition agreed to by other licensees.

X Q. 86. Was the license then tendered them printed at the same time Hemmingray Co's license was?

A. I think it was; I received them from the printers at the same time.

X Q. 87. You had these licenses, then, printed yourself?

A. I did.

X Q. 88. Please explain what is the meaning of the words "J.
138 C. Hoadley, trustee for the American Sand-Blast Company," which are printed in Hemmingray & Co's lease.

A. I had. (The witness having asked permission to write his answer, and having done so, reads:) "The license was printed when it was proposed to make J. C. Hoadley trustee of a company, which company was not formed."

X Q. 89. Were those words in the license which you say you presented to M'r Hartell after the machine had been paid for?

A. The printed matter was the same; yes, those words were in.

X Q. 90. In your answer to cross-question 83 you state that the printed portion of the license you presented to M'r Hartell was precisely the same as the printed portions of Page, Harding & Co's license, and in answer to cross-question 86 you say the license tendered to M'r Hartell at that time was the same as Hemmingray & Co's license; please examine Page, Harding & Co's license, and state if you find therein the printed words, "J. C. Hoadley, trustee for the American Sand-Blast Company."

A. The printed matter is the same; the printed matter was not the same. Those words are not there.

X Q. 91. Did the license you presented at that time to M'r Hartell, contain these words, printed, "Or, if the said machine shall remain idle for three consecutive months, the lessor, his successor or legal representatives or assigns, shall have the right to terminate this lease and license, by giving written notice to the said lessee that he had elected so to do?"

A. I can't tell without reading the documents.

X Q. 92. Please examine Complainants' Exhibit No. 3, being Page, Harding & Co's license, and state if you find those words there.

A. The words "Or if the machine shall remain idle for three
139 consecutive months" in that document are here printed, but have bean erased by the pen, in order to give an exact copy.

X Q. 93. Now, please state whether those words were or were not printed in the license which you state you offered to M'r Hartell at the time mentioned.

A. They were not, as this printed document was printed at the later date but used just to fill up as a copy.

Adjourned until to-morrow at eleven o'clock.

OFFICE OF GEORGE HARDING, ESQ.,
900 *Chestnut Street, Philadelphia,*
April 23d, 1875.

Cross-examination of Gorham Blake continued by M'r Connolly:

X Q. 94. Will you please tell me who is M'r J. C. Hoadley, where he resides, and what is his business?

A. I think he resides in Lowell, Massachusetts, it may be Lawrence, Massachusetts; I believe his business was building machinery.

X Q. 95. You have stated, I believe, that since you became the general business agent of complainant the title of the sand-blast patents has been in the patentee, B. C. Tilghman; is that so?

A. I believe it is.

X Q. 96. Do you know whether or not since the patents was originally granted there has been made any assignment, in trust or otherwise, of said patent?

A. I do not.

X Q. 97. State if you know or have ever heard of any such organization as the American Sand-Blast Company.

A. I have heard of a proposed organization to be called by that name.

X Q. 98. Were any steps ever taken to organize such a company; if so, when?

140 A. Preliminary steps were taken in June, '73.

X Q. 99. Have any steps in reference to the organization or completion of such a company been taken since you became general business agent of complainant?

A. Not that I know of.

X Q. 100. Can you now produce the memorandum you spoke of yesterday, that will enable you to fix the time when Hemmingray Co. and Page, Harding & Co. executed the agreements, of which Exhibits B and C purport to be copies?

A. I have not found any memoranda that would give me the date of the execution of Page, Harding & Co.'s license, but have found a memorandum of my being in Cincinnati about the eighteenth of September, '73, and think the license of Hemmingray & Co. may have been signed at that time, or it may have been sent them by mail about that time.

X Q. 101. Have you made a search for the memorandum fixing the date of the signing of Page, Harding & Co.'s license?

A. I have; a thorough one.

X Q. 102. Will you please produce the documents promised in your answers to cross-questions sixty-six and sixty-seven?

A. I produce these two licenses, which are the same, excepting the names and residence of licensees, the dates and number of license. (Licenses produced and marked "Complainant's Exhibits 4 and 5." Complainant offering the same in evidence, No. 4 being copy of license to Wilcox Silver Plate Co., dated February 1st, 1874, and No. 5 being copy of license to Simpson, Hall, Miller & Co., dated February 10th.)

X Q. 103. About how long did your interview with M'r Letchworth, in New York, last?

A. Ten or fifteen minutes about.

141 X Q. 104. Did you, at that interview, explain to M'r Letchworth the sand-blast process and operation of the machine at M'r Nichols' factory?

A. I talked to him about the sand-blast process; do not remember showing him the machine.

X Q. 105. Was there a machine in operation at Nichols' factory at the time of your interview there with M'r Letchworth?

A. There was one erected; I think not running at the time.

X Q. 106. Did you at that interview fully explain to M'r Letchworth the nature of licenses granted to parties using the sand-blast process?

A. The matter was talked of; he seemed to be perfectly familiar with the license that he was required to sign. He stated that M'r R. A. Tilghman had explained to him the nature and requirements of the license and agreement, but had referred to me to carry out the business arrangements.

X Q. 107. Did M'r Letchworth then ask you what were the terms of the license, or did he seem to be already informed on that point?

A. He seemed to be already informed on that point, and spoke of the privilege M'r Tilghman had of raising the royalties after six months' notice; he said it was hard; that he could stand it if other parties could, or words to that effect.

X Q. 108. Then he seemed to be already informed of the terms of the license, and did not ask you for information on that point. Is that so?

A. He did ask for information.

X Q. 109. Upon what point did he express ignorance and require to be informed?

A. On the terms of royalties and general business.

X Q. 110. What do you mean by general business?

A. The cost of machines.

142 X Q. 111. Did you then state to him the rates of royalties on the different articles to be worked under the sand-blast process?

A. I believe that I did.

X Q. 112. Name, if you please, what articles you then stated the rates upon to him.

A. I do not remember exactly, but think I stated flat glass and globes.

X Q. 113. What were the rates then named by you?

A. I do not remember.

X Q. 114. Did M'r Letchworth then enter, on behalf of his firm, into any arrangements with you in reference to the use of the sand-blast machines and process?

A. He did not; I think he had not decided about it himself.

X Q. 115. Was that question of the defendant's using the machines and process then discussed between you?

A. I think it was talked about.

X Q. 116. Do you mean to say that in an interview of ten or fifteen minutes all these matters of an introduction, an explanation of the sand-blast process, a reference to the terms of license, statement of the terms of royalties, making returns, &c., and a narration of the other parties engaged in the business were all gone over between you and M'r Letchworth?

A. My private conversation with M'r Letchworth did not occupy, if I remember rightly, more than fifteen minutes; my whole visit to the room or factory of M'r Nichols may have extended over the space of half or three-quarters of an hour, during which time, or a part of that time, a general conversation was carried on with other parties in the room; I think M'r Nichols at that time explained to M'r Letchworth the working of the machine and his process of putting on patterns.

X Q. 117. At that interview did you tell M'r Letchworth that defendants' license would be the same as that granted to other parties using the sand-blast process?

143 A. I did, for the same work.

X Q. 118. Did you also tell him that the rates of royalty would be the same as those charged to other parties using the sand-blast process on the same work?

A. The same always, excepting M'r Nichols, which I spoke of at the time.

X Q. 119. Did you send on to defendants a list or schedule of royalties on which the rates were the same as those charged to other parties on the same work, excepting M'r Nichols, as above stated?

A. I think I did; I intended to do so, and give them an exact copy.

X Q. 130. Please examine Defendants' Exhibits B and C and state whether or not the rates there given are the same as those charged to other parties in the same business, excepting M'r Nichols.

A. I think they are the same, sir—intended to be.

X Q. 121. Now, please examine Defendants' Exhibits I and L, and state what other parties in the same business as Hartell & Letchworth have a license precisely the same as those.

A. These are essentially the same as Page, Harding & Co.'s and the Hemmingray Glass Company's licenses; M'r Hartell was presented with a printed blank form precisely alike to those on which Page, Harding & Co's licenses were written.

X Q. 122. You have not answered my question at all. I read it again for you, and request a specific answer.

A. Page, Harding & Co's and Hemmingray & Co's are essentially the same.

X Q. 123. Are they precisely the same?

A. They are not precisely the same.

X Q. 124. Then you did send to defendants a schedule of rates of royalties the same as those charged to other parties, and you also sent them a license not precisely the same as those issued to other

144 parties in the same business?

A. I sent them a schedule of royalties the same as to other parties, and blank forms to be filled out as near as possible the same as to other parties.

X Q. 125. You have stated that the licenses sent them, Exhibits I and L, are not precisely the same as those issued to Page, Harding & Co. and Hemmingray & Co., why was it not possible to send defend-

ants a license precisely the same as those issued to the other parties named?

A. It was possible, and I did tender to M'r Hartell a printed blank precisely like the printed blank on which Page, Harding & Co's and Hemmingray & Co's licenses were written. I offer that in evidence.

(Paper produced and marked "Complainant's Exhibit No. 6.")

X Q. 126. Now, when did you offer that to M'r Hartell?

A. I do not remember the date.

X Q. 127. Was it after the machines were paid for?

A. I think it was.

X Q. 128. When and where did you first meet M'r Hartell, defendant in this cause?

A. At his store, on Fifth street; I do not remember the exact date. It was about the time the machinery was sent on, I think, from Boston.

X Q. 129. Was this after or before the defendants had agreed to go into the sand-blast business?

A. I think it was after; I do not know the exact date they did agree to go into it.

X Q. 130. At that interview, did M'r Hartell express ignorance of the terms upon which defendants were to operate the sand-blast?

A. He seemed to be somewhat familiar with it.

X Q. 131. Did he seem to understand the rates of royalties?

A. He asked me on what terms the sand-blast could be used. I explained to him the terms, as near as I could remember, of royalties to be paid, and the terms of the license and agreement.

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X Q. 132. Did you show him, at that time, any copy of the license and agreement under which his firm were to operate the sand-blast.

A. I do not remember that I did.

X Q. 133. Did you have any conversation with M'r Hartell at that time about licensing other parties to use the sand-blast in Philadelphia?

A. I did, at one interview; I do not remember if that was the time; I think it was.

X Q. 134. What did you say to him in reference to that matter?

A. That it was not our policy to put up machines in the same city to run against him if he pushed the business and did the work for Philadelphia, and complied with the terms of the license and paid the royalties. I think that was the sense of the conversation, it may not have been the exact words.

X Q. 135. Has that been your policy and line of conduct with regard to other parties licensed to use the sand-blast process?

A. It has.

X Q. 136. Did you, at that interview, promise M'r Hartell an absolute, exclusive license for the city of Philadelphia?

A. I did not positively promise to give him an exclusive license.

X Q. 137. Did you ever promise an exclusive license to either of the defendants, for the city of Philadelphia?

A. I did not.

X Q. 138. Have you ever granted to any parties an exclusive license to use the sand blast process?

A. I have not.

X Q. 139. Then I understand you to say that while you do not grant to any party an exclusive license, still it has been and is your policy and line of conduct not to grant licenses to rival parties in the same place; is that so?

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A. It is, and is optional with us.

X Q. 140. Please look at the schedule of royalties forming part of Defendants' Exhibit B, and say whether or not the words in purple ink, "zinc ten cents per square foot," are in your handwriting.

A. I think they are.

X Q. 141. State, if you can, when these words were written therein.

A. I do not remember; I think at the time of an interview in April; I am not sure about it at all. I think at the time the bill was paid.

X Q. 142. Was it before or after the moment the payment was made for the machines?

A. I do not remember.

X Q. 143. Please look at Defendants' Exhibit D and state if that is not the first bill you sent them for the machines.

A. I think it was.

X Q. 144. Now, please look at the bill forming part of Defendants' Exhibit I and state the reason for the increase of the price of the machines therein made over that in Exhibit D.

A. To cover extra machinery furnished and extra labor of man from Boston to put the extra machinery in.

X Q. 145. Are there not separate items for the machines, and for the labor and other expenses of the man who put them up, in both the bills?

A. He made two trips or three trips from Boston to Philadelphia, a part of the expenses of which are not included in the first bill. There are separate items.

X Q. 146. Now please state what are the respective dates of the two bills.

A. The first is November 10th, 1873, the second is October, 1874, which is evidently written by some one else; I mean the date.

147 (The last part of witness' answer, following "1874," is objected to as uncalled for.)

X Q. 147. When was this last bill forwarded?

A. March 4th, 1874.

X Q. 148. Was this the first time you ever demanded payment of the defendants for machines furnished them?

A. I think it was; I am not sure.

X Q. 149. Now when the defendants paid the bill, Exhibit M, did they not demand that the machines should be charged according to the statement of November 10th, and did they not also insist that a reduction should be made on what they called the exorbitant charge for labor and expenses?

A. I think they did.

X Q. 150. And was not payment accepted by you, in view of this statement and request of theirs?

A. I think it was for that reason and the reason that I did not want to have any further difficulty with them in collecting the bill.

X Q. 151. Did not the defendants, at this interview, decline to sign the license and agreement which you had sent them?

A. They did.

X Q. 152. And you accepted payment for the machines, notwithstanding their refusal to sign the license and agreemant you had sent them?

A. It was understood by me that they were to sign the license and pay the bill at that interview; they paid the bill first, and then declined to sign the license, stating they wished to consult with M'r Letchworth's brother before signing, who was then out of town. I asked them how long a time they wanted. They said a few days, and would

send it to me signed by next Saturday. I then left, stating that I shall expect it.

X Q. 153. Please explain or state what reason they assign for
148 wishing to consult M'r Letchworth's brother, if they promised to sign and send on the license on Saturday.

A. That it was an important matter, and they wished to see him.

X Q. 154. Then it was only in case M'r Letchworth's brother approved of their signing they would do so, was it not?

A. I do not know; they did not say anything about that.

X Q. 155. After you had received payment for the machines, did not M'r Hartell emphatically say that he never would sign the license and agreement, or anything of the kind, at that interview?

A. He did not, to my knowledge; previously he had agreed to do so, and sign a license same as other licensees.

X Q. 156. When did he say that?

A. In an interview some time previous; I cannot recall the exact date now; it was when the machines were being erected.

X Q. 157. What words did he employ in making this promise?

A. In asking him to sign the license and send it to me after M'r Letchworth's return from the South, I think the exact words in answer were, "Yes, I will."

X Q. 158. Will you positively swear that M'r Hartell did not emphatically refuse to sign the license and agreement on the occasion of your interview with him, when payment was made for the machines and before the check was handed to you?

A. He declined to sign the license at that time, after the check was handed to me.

X Q. 159. In your answer to question 18 you state, "I remember now that I had a previous conversation some time before when I called to get the license signed and bill paid; M'r Hartell said he hadn't seen any papers, license, or bill," and in your answer to cross-
149 questions 156 and 157 you state "that when the machines were in course of erection you asked him to sign the license, and he agreed to do so;" now, why did you not remind him of the promise you say he had made months previously thereto?

A. There are no dates to show, as I see, that I have made a misstatement. My answer to question 18 is, "That the interview referred to was after the machines were erected." I think I did remind him of the promise.

Redirect examination of Gorham Blake by the complainant:

Q. 160. At the time when it was proposed to form the American Sand Blast Company was it proposed that you should be the agent of that company, if formed?

A. It was.

Q. 161. Did you at that time assist in drawing up the "J. C. Hoadly" form of license, such as was afterwards signed by the Hemmingray Glass Company? If so, state who else assisted at the drawing up of said form, if anybody.

A. I did, with the assistance of M'r R. A. Tilghman.

Q. 162. Was any one, and who, consulted as legal counsel?

A. The manuscript was submitted to M'r E. Merwin, of Boston.

Q. 63. About what time was said form of license sent to be printed?

A. From the first to the middle of July, 1873.

Q. 164. State what was the next form of license that you had printed.

A. It is the form of license in Defendants' Exhibits I and L.

Q. 165. What legal advice, if any, was taken as to this change in the form of license?

A. I made a change in form of license by the advice of M'r George Harding, of Philadelphia, leaving out the parts pertaining to machinery.

150 Q. 166. When was this form of license printed?

A. I think in January, '74.

Q. 167. What was the next form of license that you had printed?

A. The form as printed in Complainant's Exhibit No. 3.

Q. 168. When was this form printed?

A. I think in January, '75.

Q. 169. Have any licenses ever been executed by you in this form?

A. There has not.

Q. 170. Have any other forms of license besides these three been printed for you?

A. There have not?

Q. 171. Will you produce the original licenses and agreements signed by the Hemmingray Glass Company and Page, Harding & Co.?

(Witness produces the license to Hemmingray Glass Company, and states that he has not Page & Harding's; that he saw it here and had it yesterday, but that it has been mislaid. Complainant offers to produce the original Page & Harding license as soon as it is found. Hemmingray Glass Company's two licenses marked Complaintant's Exhibits No. 7 and No. 8.)

A. Complainant's Exhibits No. 7 and No. 8 are the Hemmingray licenses called for; Page, Harding & Co's license is mislaid.

Q. 172. Produce, if you can, the copy of Page & Harding's license made upon the same printed form as the original.

A. I think this is an exact copy.

(Witness produces Complainant's Exhibit Nc. 9.)

Q. 173. When did you compare it with the original.

A. Last evening.

Q. 173. Are you certain that it is upon the same printed form as the original?

A. I am.

151 Q. 175. Look at Complainant's Exhibit No. 3, and state when the printed form upon which it is filled up, so as to make it a copy of the Page & Harding license, was first printed.

A. I think in January, '75.

Q. 176. Did you make the copy of Complainant's Exhibit No. 3?

A. I did.

Q. 177. State how it happened that said copy was made upon a different printed form from the original.

A. At the time I made this copy I could not find any of the blanks on which the original was written.

Q. 178. Look at the paper now produced and say whether it is a copy of the agreement referred to in the said Page & Harding license as the agreement signed by B. C. Tilghman, February 27, 1873.

(Paper produced, marked "Complainant's Exhibit No. 10.")

A. It is.

Q. 179. Referring to your 156th answer, wherein you state "in an interview some time previous; I cannot recall the exact date now; it was when the machines were being erected"; please state more particularly, if you can, whether the said interview took place prior to November 10th, '73, when the globe machine was in running order, or

between that date and March 4th, '74, during which time the repairs and alterations were being made to the flat glass machine.

A. That interview, I think, was between November 10th and March 4th.

Recross-examination of Gorham Blake by M'r Letchworth:

X Q. 180. Can you now tell the date upon which you executed the Hemmingray license?

A. I cannot tell the exact date.

152 X Q. 181. Must it not have been at a date subsequent to the printing of the form upon which it is written?

A. Yes, sir.

Adjourned until Saturday, April 24th, 1875.

OFFICE OF GEORGE HARDING, ESQ.,
900 *Chestnut Street*, *Philadelphia*,
April 24, 1875.

Recross-examination of Gorham Blake continued by M'r Connolly:

X Q. 182. How many sand-blast machines do Hemmingray & Co. operate?

A. Two.

X Q. 183. How many licenses have been granted to them?

A. Two.

X Q. 184. One for each machine?

A. One for each machine.

X Q. 185. What are the numbers of those licenses?

A. Nine and seventeen.

X Q. 186. Do you issue separate licenses to separate machines?

A. Sometimes.

X Q. 187. Is not that your invariable rule?

A. It is not.

X Q. 188. Have you ever granted in one license the right to use more than one machine?

A. I have not all my licenses here, and I cannot say without referring to them.

X Q. 189. Can you now tell me from memory any case in which, under one license you granted the right to use more than one machine?

A. I can.

X Q. 190. Please do so.

153 A. Simpson, Hall, Miller & Co. use two machines, Wilcox Silver Plate Co. use two machines.

X Q. 191. What are the character of these machines?

A. For frosting silver-plated ware.

Redirect examination of Gorham Blake by the complainant:

Q. 192. Can you now produce and identify the original license signed by Page, Harding & Co. and yourself?

A. I now produce the original license signed by Page, Harding & Co. and myself.

(Paper produced and marked "Complainant's Exhibit No. 1.")

GORHAM BLAKE.

COUNTY OF PHILADELPHIA,
State of Pennsylvania, *ss*:

On this 24th day of April, A. D. 1875, before me, an alderman of the city of Philadelphia, personally appeared Gorham Blake, who, being by

me duly sworn, did depose and say, that the foregoing testimony signed by him and given in the suit of Benjamin C. Tilghman vs. Hartell & Letchworth, Oct. T., 1874, No. 41, is the truth, the whole truth, and nothing but the truth.

Sworn and subscribed before me this twenty-fourth day of April, A. D. 1875.

EDWD. SHAIN,
Alderman.

LAW OFFICE OF GEORGE HARDING,
Philadelphia, April 29th, 1875.

Present: the complainant in propria persona, M'r Connolly for defendant.

RICHARD A. TILGHMAN, a witness for the complainant—

154 (M'r Connolly objects to witness being sworn on account of want of religious belief)—being produced, testifies as follows in answer to interrogatories by the complainant:

Witness examined on his voire dire.

Q. 193. Do you believe in the existence of a Supreme Being?

A. I do.

Q. 194. Will you be in your conscience bound to tell the truth under the oath proposed to be administered?

A. I will.

Q. 195. Do you believe that in a future state you will be punished for any falsehood in your testimony given under the oath proposed to be administered?

A. I do.

(Defendant's counsel declined to cross-examine on the voire dire.)

Witness is duly sworn.

Q. 196. What position do you occupy with regard to the complainant?

A. I am agent and attorney, and have been acting as such since the complainant left this country for Europe, in July, 1873. I am the brother of complainant.

Q. 107. When and where did you first talk with M'r Letchworth, the defendant, about his firm using the sand-blast process? And state, as nearly as you can, what occurred between you.

(Objected to by M'r Connolly; witness not having stated that he had ever talked with M'r Letchworth.)

A. I cannot state precisely when I first conversed with M'r Letchworth on the general subject of the use of the sand-blast for the objects his firm were engaged in manufacturing; I saw him frequently in the cars of the Pennsylvania Railroad, between my residence at Bryn Mawr and Philadelphia, during the summer of '73; the first serious or business conversation I had with him on the subject of a license to his firm to use the sand-blast was on August

155 26th, 1873; on that occasion M'r Letchworth came over to my seat in the cars and told me they had decided to apply for a license, and wished to know particularly the terms of our licenses and the rates of royalty charged by us; I told him that as to the rates of royalty I could not give him the precise figures, but referred him to our agent, Mr. Gorham Blake, of Boston, for them, and also for the form of license which we issued to licensees, which M'r Blake had on hand, printed; I had previously mentioned to him what I supposed to be the rates of royalty, stating at that time, however, that I could not trust my memory for the details; we then conversed on the subject of the license; I told him that,

besides the conditions which I believe are common in such documents, as to the means of verifying the correctness of accounts of work done, the most peculiar feature of the license was that we retained in it the power of altering the license rates fixed on the various articles once every year, giving six months' notice before such change would come into effect; he replied that such a power as that would be entirely inadmissable, as they would not be able to make contracts ahead for the delivery of goods, not knowing what license rates they would have to pay; I informed him that that was the only condition on which we issued licenses, and that I did not see that it was any more an element of uncertainty in future contracts than the price they might be obliged to pay for labor or for the glass itself, and asked him whether his laborers or glass manufacturers ever gave him contracts what they were going to charge him six months ahead; M'r Letchworth said they had not done so, and, after some time, asked whether these terms were in force equally from other manufacturers in the same business, and inquired who were working under such licenses; I informed him that the Hemmingray Glass Company, of Cincinnati, had machines for working both globes and flat glass, and that Page, Harding & Co., of Boston, were
156 working a flat glass machine; that a manufacturer named Nichols, in New York or Brooklyn, had a different and less favorable license granted to him a considerable time previous, when we had not the entire control of the sand-blast process; that I believed M'r Nichols had not yet put any globes into the market and had not yet paid any royalty; M'r Letchworth, after renewing his inquiry as to whether there was any "ground-floor" arrangement for more favorable terms, said that he could work—all that he wanted was a fair show with other manufacturers in the same line of business; I then suggested that he should, before making any positive arrangement, visit our works in New York, and then see M'r Blake in Boston, who would supply him with a copy of our terms of license and official schedule of the rates of royalty, and that M'r Blake could take him into the works of our licensee in Boston, Page, Harding & Co.; I furnished him with a card of introduction to M'r Coleman, the manager of our works in New York, but told him that he would need no letter of introduction to M'r Blake other than his name, as I had already written and informed M'r Blake that they were thinking of taking a license—by "they" I mean Hartell & Letchworth; we parted with the understanding that he would visit our works in New York, and afterwards go on to Boston to see Blake and Page, Harding & Co's works; he had previously asked as to inspecting M'r Nichols' works, as being more interesting to him than either of the other works, as he manufactured globes and the New York and Boston works did not; I told him I had heard that M'r Nichols was very close about allowing any one to visit his works, and explained to Mr. Letchworth the nature of the process used by M'r Nichols, and I believe patented by him, of producing the ornamental figures on his globes by means of India-rubber-faced paper patterns; I had considerable conversation with M'r Letchworth on the subject of the terms on which we put up apparatus for
157 working the sand-blast, but cannot remember precisely what portions of said conversations took place on this interview and what took place on our next interview.

(Last sentence objected to as irresponsive.)

Q. 198. Look at the paper now produced, Complainant's Exhibit No. 2, and state whether or not that printed form or blank of a "lease and agreement" was in your possession before the time of this interview with M'r Letchworth.

A. It was.

Q. 199. State when was your next interview with M'r Letchworth, and what passed between you.

A. It was upon August 29th, in the railroad car; he told me that he had met M'r Blake at M'r Nichols' factory, in New York or Brooklyn, I forget which it was, and had been over our own works in Twenty-eighth street, New York; he mentioned that he had had to hunt up M'r Coleman at his hotel and gone with him to the works, making some remarks as to his not keeping very early hours for a man with a factory in charge; he mentioned spending some considerable time at the works in Twenty-eighth street, and intimated that Mr. Coleman did not seem very anxious to communicate everything to him; he spoke of it having been so fortunate that he should encounter M'r Blake at Nichols' factory, as it had saved him the trouble of a journey to Boston; I understood from him that he had settled everything satisfactorily with M'r Blake, and that his firm had now decided to go on and work under our license and have the machinery put up as soon as possible; as before stated, I am unable to specify how much of our conversation on the subject of machinery had been commenced in the interview of the 26th of August.

Q. 200. State what passed between you and M'r Letchworth on the subject of the machinery to work the sand-blast at either or both these interviews.

158 A. M'r Letchworth speaking constantly of our patented machine, I informed him that we had no patent for machinery whatever; that our patent was for a process, and that I believed any one had a right to construct the machines used for it without hindrance from us, unless he attempted to put it into operation for sand-blast work; that we would allow them to make their entire machinery themselves, if they preferred it, and I would furnish them with working drawings to do so, but that there were certain parts of the apparatus that differed so much from any apparatus in use for other purposes that we had gotten a firm in Boston to make several sets of such parts, which would be supplied to any licensee at cost price; that we would also furnish a machinist who could superintend the erection and starting of the said machinery on his expenses and wages being repaid to us; Mr. Letchworth said they would prefer to get the entire machinery from us, but I declined to furnish anything more than the special and difficult parts above mentioned; he then asked me to get M'r Blake to push on the preparation of this machinery, and he received from me the address of the manufacturers of the blowing apparatus, which he said he would order at once, as I warned him that we had had great annoyance and delay, caused by the slowness with which previous orders for blowers had been filled.

Adjourned till 2 o'clock to-morrow, April 30th, 1875.

Adjourned to Monday, May 3d, 1875, at 11 a. m.

PHILADELPHIA,
900 *Chestnut Street, May 3d*, 1875.

Present, M'r Connolly for defendants; the complainant in propria persona.

Direct examination of R. A. Tilghman continued:

Q. 201. Was your interview with M'r Letchworth, on the 26th of August, confined to your meeting in the cars, or did you go anywhere together; and, if so, where?

159 A. After leaving the cars at the depot, M'r Letchworth accompanied me to the stone works of William Struthers & Sons to wit-

ness the operation of the sand-blast process, as used at that place for cutting marble and granite. My impression is that it was while at Struthers' works that I furnished him with the card introducing him to M'r Coleman.

Q. 202. Was anything said at the interview of the 26th or 29th of August in reference to your putting in machinery in satisfactory running order; if so, what?

A. It was mentioned on the 29th, and, I think, on the 26th also, that we would put the machinery in running order before the execution of the license.

Q. 203. Was anything said as to when the machinery furnished by you was to be paid for by them?

A. I mentioned that all our expenses, both for machinery furnished and for the workmen sent on to erect it, were to be repaid us at the same time that the license was to be executed, which was on the machinery being in satisfactory running order.

Q. 204. By whom was the printed form of license mentioned in your 197th answer drawn up, and who was consulted about it?

A. It was drawn up mostly under the supervision of the complainant himself, shortly before he left this country, and the rough draft submitted to M'r Elias Merwin, of Boston, by whom, after some modifications, it was approved and then printed.

Q. 205. Was that printed form the only printed form of license for the sand-blast process in existence, as far as you know, on the twenty-sixth of August, 1873?

A. It was.

Q. 206. In your two interviews with M'r Letchworth, on the 26th and 29th of August, what was said, if anything, about their having an exclusive license?

160 A. The inquiry was made by M'r Letchworth whether their license would not be an exclusive one for the Philadelphia district. I told him that we had decided to grant no exclusive licenses, but at the same time we did not believe it good policy to issue so many as to induce a ruinous competition among the licensees, and therefore we did not intend to make use of this reserve power to issue other licenses in cases where the existing licensees satisfied us, from their energy in pushing on the business, and the character of their work, that they did full justice to the invention or process.

Q. 207. What did you do, if anything, in consequence of your interview of the 29th of August?

A. I ordered M'r Blake to start the preparation of machinery at once, and push it on to completion as rapidly as he could.

Q. 208. When was your next interview with the defendants, or either of them, and state what occurred.

A. I cannot give precise dates of the next interview, which was, I believe, with M'r Letchworth, in the cars of the Pennsylvania Railroad, when I ascertained that the order for the blowing apparatus had not been given at once, as I had understood from him was to be the case, but that they had been looking up some cheap second-hand fan-blowers which were entirely unsuited to give the pressure required.

(Last remark of witness objected to as a volunteer argument by M'r Connolly.)

Q. 209. State what interview you had, if any, with defendants at their store, and what occurred there.

A. There was an interview with both the defendants at their store, according to my impression, some days later than the last mentioned con-

versation, as to the blowers. I do not remember anything of special importance occurring at that interview. The subject of their future workings, the process was talked over, and I think the same suggestion, as to their license being an exclusive one, was made by M'r Hartell, and received from me the same reply as given to M'r Letchworth. I
161 rather think that that was the last time I saw M'r Letchworth to speak to before the commencement of the present suit.

(Last volunteer suggestion of the witness objected to by M'r Connolly.)

Q. 210. Was the arrangement made between M'r Letchworth and yourself on the 29th of August ever afterward altered by you, or with your knowledge and consent?

(Question objected to, witness not having mentioned any arrangement as having been made between himself and M'r Letchworth on the occasion referred to.)

A. The arrangement which I made with M'r Letchworth on the 29th of August was never altered in any way by me since that date.

Q. 211. When was the globe machine put up in good running order at defendants' factory?

A. My belief is that it was in good running order about the end of October of that year, 1873. I made a note of the exact date of my witnessing its satisfactory performance, which I can refer to, if desired.

(Objected to as reasoning on the part of the witness.)

Q. 212. What occurred about putting the flat-glass machine in good running order?

A. The flat-glass machine as left by the machinist who erected it did not cut the glass in a uniform manner over the whole breadth it was intended for, which prevented its doing as much work as it should do. Expecting that this trouble would disappear by a little more use of the machine and experience of those using it, it was allowed to run on until I was informed by M'r Blake that the defendants had written to him complaining of its imperfections. I directed him to send back the machinist who had erected it, and subsequently instructed him in the changes to make. The principal change made in it related to the feeding arrangement for the sand and the elevating machinery for the
162 same. It was in good running order about the end of February, as near as I can recollect, without referring to memoranda made at the time.

Q. 213. Did you, in company with M'r Blake, have an interview with M'r Hartell at his store some time in April, 1874? If so, state what occurred.

A. I had such an interview, I think, on the 23d of April, 1874. We saw M'r Hartell, and M'r Blake then tendered M'r Hartell a printed form of license, to which he requested his signature. Mr. Hartell answered that he was busy and could not attend to it. M'r Blake responded that he had come on several times from Boston upon repeated promises of the execution of that paper, and expressed his determination that he would not be fooled with any longer about it, and that if it was not signed then and there he would notify him to desist from using the sand-blast, as having no authority to use it. M'r. Hartell then replied that he would not sign it for a thousand dollars, and that he had arready from M'r Blake as good a license as he needed. M'r Blake then handed M'r Hartell a written notice to cease using the sand-blast process. Those are all the important features that I remember.

Cross-examination of M'r R. A. Tilghman by M'r Connolly:

X Q. 214. At the examination in his cause when the witness Gorham Blake gave his testimony, were you present?

A. During a great part of Blake's examination I was present, but not during the whole.

X Q. 215. Since you gave your testimony last Thursday have you conferred with complainant or counsel in regard to the same?

A. With complainant I have certainly conferred with regard to it; not with M'r Harding.

163 X Q. 216. Have you ever made a statement contrary to the assertion contained in your answer to question 193?

(Objected to because the examination on the voire dire is closed and cross-examination thereon was declined by the defendant's counsel.

To which counsel for defendants replied that he preferred that witness should make his answer on this point under oath.)

A. No, I have not.

X Q. 217. Have you never, to a M'r Rosenthal, an artist or photographer, of this city, denied your belief in the existence of a God?

(Objected to.)

A. Before I can answer that question you must define for me the exact sense in which the word God is used.

X Q. 218. I no not choose to make any definition of the term further than itself conveys, and request a specific answer to the question.

(Objected to also.)

A. I cannot answer a question using a word in one sense which may be understood by others in a different sense.

X Q. 219. Question repeated.

(Objected to by complainant's counsel, that when a witness has declared his belief in the existence of a Supreme Being, and the binding effect of an oath on his conscience and of future punishment for violation of his oath, any further examination of his religious belief is illegal.

To which counsel for defendants replies that the question propounded is not for the purpose of ascertaining witness' present belief, but of learning whether he has not made anterior contradictory assertions.)

A. Answer repeated, with the addition that he has made no change for many years in his views of such matters.

(The addition is objected to as irresponsive and uncalled for.)

164 X Q. 220. Question again repeated.

A. Same answer.

X Q. 221. Have you never denied your belief in the existence of a future state?

(Question objected to.)

A. Witness requests the exact definition of the meaning applied to the words "future state," as necessary to his answer to the same.

(Witness is informed that he is requested to answer questions according to their terms, it not being the province of counsel to enter into minute definitions of ordinary and legal phrases. Question again repeated.)

A. I have denied belief in the existence of such a future state as is believed in by many persons; I have not denied belief in the existence of a future state as I understand those words.

X Q. 222. Have you never broadly denied to the M'r Rosenthal above named your belief in the existence of a future state of rewards and punishments?

(Objected to.)

A. I have expressed to M'r Rosenthal my disbelief of the common

ideas of future punishment by brimstone and reward by psalmody; but do not consider such disbelief as in any way conflicting with a conviction of the future results of good or bad actions, which I have always believed in.

X Q. 223. Answer objected to as irresponsive, and question repeated. (Objected to.)

A. I have never denied to M'r Rosenthal my belief on these subjects in any broader manner than specified in my last answer.

X Q. 224. Before the interview of August 26th, 1873, did you have any conversation with M'r Letchworth with reference to defendant's going into the sand-blast business?

165 A. I had had several conversations with him on that subject, but no direct application for a license to do so prior to that interview of the 26th of August.

X Q. 225. Had you explained to him the nature or terms of your license before that interview?

A. I do not think that I had ever any conversation with him on the subject of the form of license; our conversation had been on the applicability of the process to the kind of work that they wished to do.

X Q. 226. And yet you say that at that interview of August 26th, M'r Letchworth, without knowing from you what the terms of your licenses were, stated that the defendants had decided to apply for a license; is that so?

A. I understood M'r Letchworth not as binding himself then and there to take an unknown form of license, but as communicating the desire of his firm to work by the sand-blast process in case he should find the terms suitable and satisfactory.

X Q. 227. This interview, I understand you to say, took place on the cars between Philadelphia and Bryn Mawr; were you then coming to or going from the city?

A. This interview commenced in the cars coming from Bryn Mawr to the city.

X Q. 228. By whom was the conversation opened?

A. By M'r Letchworth.

X Q. 229. Please detail what was then said by M'r Letchworth and yourself with reference to defendants' using the sand-blast process?

A. He informed me that his firm had decided that they would like to use the sand-blast process in their business, and asked me to let them know the terms of our license and our rates of royalty; I told him that as to the rates of royalty I was still unable, as I had been when asked by him the same question previously, to give him the exact figures, but that he could obtain them as well as the printed form of our license from our agent, M'r Gorham Blake, of Boston, but that I could

166 give him verbally the principal features of the license; I stated that besides the features relating to verification of accounts, which I believe are common to most forms of license, it had one peculiarity—that the rates of license were not fixed by it permanently, but that we retained the right to change them once a year, giving six months' notice of the intended change before it would come into operation; M'r Letchworth at first said that this would prevent all possibility of making contracts ahead; I told him that we granted licenses on no other condition—that we did not know what the value of our improvement really was, and we intended to retain the power of realizing a fair share of it; at that time M'r Letchworth appeared inclined to abandon the whole idea of a license, but on further conversation, in which I pointed out to him that, in reality, so long a notice of a change which became possi-

ble only at a fixed date in the year could be easily provided for in making contracts so long ahead, and that our own interest was the same as that of our licensees, in not putting the rates too high for the licensees to make good profit; he then recommenced the discussion of the question, and inquired of me whether such a condition was exacted from other manufacturers working under our licenses and who they were; I then mentioned the names of the Hemmingray Glass Company, of Cincinnati, who had a license for both flat glass and globes, and Page, Harding & Co., of Boston, for flat glass, and Nichols of New York, who had a license at a much earlier period, on different terms, for globes alone; I told him that M'r Nichols had not yet put any globes into the market, and had paid no royalty—as his royalty was only due on the actual sales of his goods, and was a percentage on the selling price; M'r Letchworth made some further inquiries as to the possibility of avoiding the unpalatable condition as to the change of royalty, and as to whether any private conditions existed giving any greater ad-
167 vantages to one manufacturer more than to another; I told him the condition as to the reserving the right to change the royalty once a year was indispensable, but that no secret or more advantageous terms would be granted to one manufacturer more than another; M'r Letchworth then replied to the effect that that was all he cared for; if he could have the same chance as other people in the business, that he was not afraid of doing as well as they did; he spoke of liking to see the process at work in some of the factories, particularly at M'r Nichols', specimens of whose very handsome work on globes I had shown him; I told him that I did not think it was possible for him to get into Nichols' works, as I understood he was very close about allowing any one to see his modes of working—that he had spent large sums of money in machinery for cutting out patterns to paste on his globes, and that he had taken out or applied for a patent for the use of a variety of paper faced with India rubber as a material for producing such patterns; I told him, however, that I could give him a card of introduction to the manager of our works in New York, M'r Coleman, and that he could also visit M'r Blake at Boston, who would furnish him with the forms of our license and correct lists of the royalties, and that M'r Blake would be able to take him to the works of Page, Harding & Co., in Boston; I parted from him with the understanding that he was going on at once both to New York and Boston.

X Q. 230. How long does it usually take the cars to run from Bryn Mawr to Philadelphia?

A. About half an hour.

X Q. 231. This was the first occasion, I understand you to say, when the question of a license for defendants was discussed; is that so?

A. It was not so; a license had often been spoken of between us, but it was the first time that a serious discussion and detail of the terms of a license took place between us. Up to that interview I had no
168 idea whether they would really adopt the process in their manufacture or not.

X Q. 232. My question was based on the following statement in your answer to question 197: "The first serious or business conversation I had with him on the subject of a license to his firm to use the sand-blast was on August 26th, 1873"; how do you reconcile that statement with the one you have just made?

A. I did not consider as serious or business conversations mere talk on the subject of the properties of the sand-blast process, for I had had such with hundreds of people, it being a subject which had excited very

general curiosity and interest. I considered it as a serious and business conversation when a person makes the direct assertion that they would like to use it on a manufacturing scale if the terms suited. Up to that interview of August 26th, I did not consider the firm of Hartell & Letchworth as having committed themselves in any way as to the advisability of working by the sand-blast process.

X Q. 233. Then you regarded your previous conversations with M'r Letchworth as "mere talk"; is that so?

A. As talk that might come to something or to nothing.

X Q. 234. You had no reason to suppose then, from these previous conversations, that defendants actually intended engaging in the sand-blast business, and treated it as you did talks with "hundreds of people" on the same subject. How is that?

A. I had no means whatever of telling what their actual intentions were on this subject. I had freely communicated to them, as was my custom to any one making inquiries on that subject, all I knew as so the utility of the sand-blast process for the various purposes to which it was applied, and could never tell, until some positive action was taken by such parties, what their conclusions might be.

169 X Q. 235. If, as you say, you had no means whatever of telling what their actual intentions were on the subject, why, as stated in your answer to question 197, had you already written and informed Mr. Blake that they were thinking of taking a license?

A. If I had thought they had already decided to take a license, I would so have informed Mr. Blake; as it was, they were only thinking, and had not decided to act.

X Q. 236. Answer objected to as irresponsive, and question repeated.

A. I had no means of telling what their actual intentions were; I could only say they were talking in a general way about the matter, without committing themselves.

X Q. 237. Did they commit themselves in any way on the occasion of that interview?

A. They committed themselves to the extent of making a positive application for the details of our license. They did not commit themselves on that interview to positively accept said license, unless the result of M'r Letchworth's visit to M'r Blake and inspection of the factories should confirm them in the desire they then expressed to have a license.

X Q. 238. You think, then, a man commits himself by asking the terms of the sand-blast license?

A. He does commit himself to the extent of being a serious enquirer.

X Q. 239. Up to the time of this conversation with M'r Letchworth, had M'r Nichols manufactured and sold any globes under the sand-blast process?

A. I understood he had manufactured a considerable number of globes, but, as previously stated, had not sold any of them, and consequently had not paid any royalty.

X Q. 240. Do you know the reason why he had not sold any of these globes? If so, please state it.

A. I do not know the reason why he had not sold them, as I have understood that these very globes were subsequently put in the

170 market and sold, and royalty paid upon them. The samples of his work which I had seen were very perfect.

(Objected to as irresponsive.)

Adjourned until 11 o'clock to-morrow, May 4th.

PHILADELPHIA, OFFICE OF GEORGE HARDING,
May 4th, '75.

Present, M'r Connolly and the complainant in propria persona.

Cross-examination of M'r R. A. Tilghman by M'r Connolly continued:

X Q. 241. By whom, on behalf of the complainant, were the agreements with Page, Harding and Hemmingray Co. pany made?

A. I believe the arrangement with Page, Harding & Co. was made chiefly under the direction of the complainant himself; that with the Hemmingray Glass Company was made under the instruction of the complainant by an agent, temporarily employed by him at that time, named Kilvert.

X Q. 242. I understand you to say that on the occasion of your interview with M'r Letchworth, either on the 26th or 29th of August, 1873, you represented to him that the Tilghman sand-blast patent was for a process only and not for a machine or machinery; is that so?

A. I represented to him that such was my opinion of the scope of the sand-blast patents.

X Q. 243. Please look at your answer to question 200, and state if you did not there allege absolutely that you had told him that complainant's patent was only for a process.

A. I did so state; and I then communicated to him what I be-
171 lieved then and now, but do not consider myself as having any judicial power to decide the nature of a legal document.

(The last part of answer is objected to as irresponsive, and volunteered on the part of the witness after counsel had objected to it.)

X Q. 244. Have you ever made any representations to other parties different from those set forth in your answer to question 200?

A. Not that I know of. I have never intended to.

X Q. 245. Did you, on the occasion of the interview of August 26, or of that of August 29, 1873, inform M'r Letchworth that defendants were at liberty to construct (and remark, now, that I say merely construct) machines suitable for the sand-blast process without let or hindrance from complainant?

A. I believe that I did communicate that precise idea that so long as persons abstained (objected to) from using said machines for carrying out the sand-blast process we could not interfere with the mere preparation of them. I know that we had acted on that belief on receiving information that parties in New York City were offering for sale machinery for carrying out the Morse patent after we had obtained an injunction stopping Morse himself from the use of said machines.

(The latter part of answer is objected to as irresponsive.)

X Q. 246. Your proposition or offer of permission to M'r Letchworth, then, was that defendants might construct the machines themselves and were to pay the same royalties as those demanded from other licensees in the same business; is that so? Please answer the question specifically and without wandering.

A. I made no proposition to M'r Letchworth as to what they were to pay in the event of their preferring to construct the machinery them-
selves. The terms would have been precisely the same as the
172 rates of royalty and conditions of license as if we had furnished part of the machinery and been repaid the cost thereof by them.

X Q. 247. Did you not say to him that defendants might construct the machines themselves, or you would furnish them with certain particular parts, and that, in either event, the rates of royalty to be paid by them would be the same as those demanded of Page, Harding, and Hemmingray Glass Company?

A. I believe I did, or words to that meaning.

X Q. 248. Having in mind then, I presume, the lease and agreement with Page, Harding & Co., and Hemmingray & Co., a copy of the form of which I believe you have already stated you then had in your possession; is that so?

A. I had in mind the lease and agreement with those two companies.

X Q. 249. Had the lease and agreement with those two parties (complainant's Exhibits Nos. 2 and 3) then been executed?

A. What was the date of actual execution of the two papers referred to I cannot say, but know that the general terms of them had been agreed to, and the parties were working under said terms prior to that date.

X Q. 250. Don't you know that these papers were not executed at the time of this interview?

A. I do not know whether they were or were not executed at that date.

X Q. 251. Please look at Exhibit (complainant's) No. 2, purporting to be a true copy of the agreement with Hemmingray Glass Company, and state if you find these words therein: "Doth lease unto the said party of the second part one four-globe machine, No. nine (9), constructed according to the specifications and embodying the invention commonly called the 'sand-blast process,' as contained and set forth in letters patent of the United States, granted to B. C. Tilghman on the eighth day of October, A. D. 1870."

173 A. I do.

X Q. 252. Were you aware of the existence of what I have just quoted when you made to M'r Letchworth the statement contained in your answer to question 200?

A. I was.

X Q. 253. Will you now, speaking as agent and attorney for complainant, say that defendants may, without let or hindrance from complainant, construct machines (and please remark that I confine my question to construction only) according to the specifications in letters patent of the United States, granted to B. C. Tilghman on the eighth day of October, A. D. 1870?

(Complainant objects that the question is ambiguous, as not defining whether the witness is to state his opinion as to the legal scope of the patent or whether he would be willing to allow defendants to construct machines.)

A. Speaking as agent and attorney in fact for the complainant, I will not say what the defendants are or are not entitled to do in this respect. Speaking as a private person——

(Objected to.

The witness here stopped.)

X Q. 254. You are not, then, now willing to speak as positively as to what defendants may do in the matter of constructing machines under complainant's patent as you were in August, 1873?

(Objected to as irrelevant and immaterial.)

A. I certainly am not willing to speak as to what defendants may do as I was in August, 1873. I was then willing that they should work under a license by the sand-blast process. From my present standpoint I should be very unwilling, had I the choice, to make such arrangement with them.

X Q. 255. I understand you to say that on the occasion of the

174 interview of the 29th of August M'r Letchworth told you that he had settled everything satisfactorily with M'r Blake; is that so?

A. Such was my distinct understanding of his meaning.

X Q. 256. In your accounts of the several interviews had with defendants or either of them, have you undertaken to give the exact language used by them, by M'r Blake and yourself, or merely your recollection of the substance of it?

A. The only instance in which I remember to have quoted exact words used in said interviews was in that of 23d of April, 1874, when I quoted words of M'r Hartell refusing to sign the license.

(Witness desires to look at his testimony, but it is objected to by defendants' counsel.)

A. Generally I have not pretended to use exact words, but only distinct recollections of their substance.

X Q. 257. Please state the exact language made use of by M'r Hartell on the occasion you refer to.

A. I did not pretend to quote all the words of M'r Hartell on that interview, but only certain expressions which had particularly impressed me; the words, "I won't sign it; I wouldn't sign it for a thousand dollars; I have already as good a license as I want;" and I am uncertain whether he added to the last phrase, "from M'r Blake." I remember immediately after leaving the store having a conference with M'r Blake (objected to) as to what M'r Hartell could be alluding to as "a license."

X Q. 258. Was there any other person present at that interview besides M'r Blake, M'r Hartell, and yourself?

A. I rather think there was some one present during a part of that interview, but am not positive either to this fact; or, if it is a fact, whether during the whole of it.

Cross-examination here concluded.

R. A. TILGHMAN.

Direct testimony here ends in this case.

175 I hereby certify the foregoing testimony was taken at the times and place herein mentioned, and subscribed by the respective witnesses in my presence, said witnesses having been duly sworn or affirmed before being examined. And that the exhibits herein mentioned were duly offered in evidence and marked by me and hereto attached.

W. C. STRAWBRIDGE,
Examiner.

176 *Complainant's Exhibit No.* 1.

PHILADELPHIA, *November 15th*, 1873.

M'r GORHAM BLAKE, *Agent for Tilghman Sand-blast:*

DEAR SIR: We are very sorry to say that we cannot get the flat-glass machine to work, and fear we will have to take it down and rebuild it, as it has evidently been put up wrong. Please give us your advice.

Yours, very truly,

HARTELL & LETCHWORTH,
Per GRIEG.

Complainant's Exhibit No. 2.

License No. 9.

This lease and agreement made the first day of July, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, P'a, party of the first part, and the Hemmingray Glass Company of Cincinnati, Ohio, party of the second part, witnesseth:

That the party of the first part, in consideration of one dollar to him paid by the said party of the second part, the receipt of which is hereby acknowledged, doth lease unto the said party of the second part one four-globe machine, No. nine (9), constructed according to the
177 specifications and embodying the invention commonly called the "sand-blast process," as contained and set forth in letters patent of the United States, granted to B. C. Tilghman on the eighth day of October, A. D. 1870; and also embodying other patents which the said party of the first part now has, or may hereafter obtain, applicable to the said process. And the said party of the first part doth hereby license the said party of the second part, and operatives in his employment, to use said machine and process upon the terms and conditions hereinafter set forth. And the said party of the first part doth also hereby license the said party of the second part to use the said patented process above mentioned, for cutting globes and round glass, for the term of the existence of said patent, and of all renewals and extensions of the same; and also all patents which the said party of the first part now has or may hereafter obtain, whether as original patentee or by assignment or license, applicable to said machine and process, and all extensions and renewals of the same: Provided, however, and this lease is made and this license is granted on the condition, that the party of the second part shall faithfully keep and perform all the conditions herein contained on his part; and upon breach of said conditions or any of them by the party of the second part, the party of the first part, his successor, legal representatives, or assigns, may, at their option, cancel and terminate this lease or license; and upon written notice thereof by the said lessor, his successor, legal representatives, or assigns, to the said lessee, this lease and license shall terminate. And the said party of the second part hereby agrees to keep and perform all the conditions of this lease and license, to wit:

First. The said lessee hereby agrees to keep a detailed account
178 of all work done by him or by any other person for him or for others by the aid of the machine hereby leased; or by the use in any way of the said sand-blast process, which account shall specify the amount done each day on each variety of work specified in schedules to be furnished to said lessee by the said first party. And within the first five days of each month said lessee agrees to render to the lessor, his successor or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the lessor, his successor or assigns, in cash for the same, according to the rates of license in force during the month when the work was done. And whenever required by the lessor, his successor, legal representatives, assigns or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said lessee, in order to verify the returns aforesaid. And the said lessee agrees to give the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, free access at all times to the premises where the ma-

chine hereby leased is stored or the process is operated for the purpose of verifying the lessor's reports.

Second. The said lessee hereby agrees that he will not in any way contest the validity of any of the patents he is hereby licensed to use, or the sufficiency of their specifications or the validity of the title of the said lessor, or of his successor, legal representatives, or assigns, to said patents, or any of them.

Third. This lease and license shall not be assignable by the lessee.

Fourth. The said lessee is by this lease and license authorized to use the machine hereby leased only in cutting globes and round glass.

Fifth. The following are agreed to by the parties aforesaid as the terms of lease of the machine which the lessee is hereby licensed to use:

179 1st. That the power conveyed by this lease and license is only the right to use said machine, and not the right to make or sell any machine embodying the patents aforesaid, or any of them; that a transfer or removal of the machine hereby leased can only be made with the consent of the lessor, or his successor, legal representatives, or assigns; and that if a sale, lease, transfer, or removal of said machine shall be made or attempted by the lessees, or by any legal officer, representative, or assignee, as the property of said lessee, without the consent of the lessor or his successor, legal representatives, or assigns, this lease and license shall thereupon terminate and expire, and the possession of said machine shall thereupon revest in the lessor, his successor, legal representatives, or assigns, and he or they may take possession of the said machine without the lessee having any claim for the repayment of any part of the sum or sums which he may have paid as consideration for the delivery of this lease and license, or for rent or license under this instrument.

2d. That in case the lessee refuses or neglects to perform, or violates any of the conditions of this lease and license, or in case of death, insolvency, bankruptcy, or retiring from business, the lessor, his successor, legal representatives, or assigns, shall have the right to terminate this lease and license, by giving written notice to the said lessee that he has elected so to do; and upon the giving of such notice this lease and license shall be terminated, and the title and possession of said machine shall thereupon revest in the lessor, or his assigns, free and discharged of this lease and license; and the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, may thereupon enter the premises where said machine may be, and may take and remove the same, and the lessee shall have no

180 claim whatever, Provided: The lessor refunds to the lessee all money paid for said machine.

3d. That this lease and license shall continue, (provided the lessee complies with the terms and conditions thereof) until the expiration of all the letters-patent which the lessee is hereby licensed to use, or any extensions or renewals of the same; and upon the expiration thereof, the lessee shall deliver to the lessor, his successor, legal representatives, or assigns, the machine hereby leased, in good order, natural wear and tear alone excepted; and the said lessee shall thereupon, if he has kept all the conditions of this lease and license, have the right to purchase said machine for the sum of one dollar.

Sixth. The said licensee agrees that he will allow the said licensor, his successor, and assigns, and his and their agents, at any time hereafter, to attach an indicator or counter to any machine embracing any of the patents hereby licensed, which now is or which may hereafter come

into possession of said licensee, for the purpose of recording work done by said machine, and to examine, modify, repair, or replace the said indicator; and that he, the said licensee, will not disturb or interfere with, nor permit any one else to disturb or interfere with any indicator which may be placed upon a machine as aforesaid. It is hereby agreed by the parties aforesaid, that the rates of license shall be the same for all the lessees and licensees of the said first party; that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished at any time by the lessor giving written notice to all the lessees, by mail as hereinafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the lessor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the lessee, before the first of July of the year preceding.

181 And the deposit of the said schedule in the post-office in Boston, addressed to the lessee, at his post-office address, shall be held to be a delivery thereof to said lessee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the lessor, as above mentioned.

In witness whereof the parties aforesaid have hereunto put their hands and seals, with the understanding that the number of the machine may be entered after signing.

B. C. TILGHMAN, [L. S.]
Per his attorney GORHAM BLAKE. [L. S.]
HEMMINGRAY GLASS CO. [L. S.]
EDWARD D. SWASEY, *Sec.* [L. S.]

Complainant's exhibit No. 3.

(Copy.)

License No. 7.

This lease and agreement, made the first day of July, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, Pa., of the first part, and Page, Harding & Co., of Boston, Mass., of the second part:

Witnesseth, That the party of the first part, in consideration of one dollar to him paid by the said party of the second part, the receipt of which is hereby acknowledged, doth lease unto the said party of the second part, one flat-glass sand-blast machine, No. seven (7), constructed according to the specifications and embodying the invention com-

182 monly called the "sand-blast process," as contained and set forth in letters-patent of the United States, granted to B. C. Tilghman on the eighteenth day of October, A. D. 1870, and also embodying other patents which the said party of the first part now has or may hereafter obtain applicable to the said process. And the said party of the first part doth hereby license the said party of the second part, and operatives in his employment, to use said machine and process upon the terms and conditions hereinafter set forth. And the said party of the first part doth also hereby license the said party of the second part to use the said patented process above mentioned, for flat glass, for the term of the existence of said patent, and of all renewals and extensions of the same. (And also all patents which the said party of the first part now has or may hereafter obtain, whether as original patentee, or by assignment or license, applicable to said machine and pro-

cess and all extensions and renewals of the same.) Provided, however, and this lease is made and this license is granted on the condition that the party of the second part shall faithfully keep and perform all the conditions herein contained on his part; and upon breach of said conditions, or any of them, by the party of the second part, the party of the first part, his successor, legal representatives, or assigns, may at their option cancel and terminate this lease and license; and upon written notice thereof by the said lessor, his successor, legal representatives, or assigns, to the said lessee, this lease and license shall terminate, and possession of said machine shall thereupon revest in said lessor, his successor, legal representatives, or assigns. And the said party of the second part hereby agrees to keep and perform all the conditions of this lease and license, to wit:

First. The said lessee hereby agrees to keep a detailed account of all work done by him or by any other person for him, or for others,
183 by the aid of the machine hereby leased; or by the use in any way of the said sand-blast process, which account shall specify the amount done each day on each variety of work specified in schedules to be furnished to said lessee by the lessor, said first party. And within the first five days of each month, said lessees agree to render to the lessor, his successor or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the lessor, his successor or assigns, in cash for the same, according to the rates of license in force during the month when the work was done. And whenever required by the lessor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said lessee, in order to verify the returns aforesaid. And the said lessee agrees to give the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, free access at all times to the premises where the machine hereby leased is stored or the process is operated, for the purpose of verifying the lessee's reports.

Second. The said lessee hereby agrees that he will not in any way contest the validity of any of the patents he is hereby licensed to use, or the sufficiency of their specifications, or the validity of the title of the said lessor, or of his successor, legal representatives, or assigns, to said patents, or any of them.

Third. This lease and license shall not be assignable by the lessee.

Fourth. The said lessee is by this lease and license authorized to use the machine hereby leased only in flat glass.

Fifth. The following are agreed to by the parties aforesaid as the terms of lease of the machine which the lessee is hereby licensed to use:

184 1st. That the power conveyed by this lease and license is only the right to use said machine, and not the right to make or sell any machine embodying the patents aforesaid, or any of them; that a transfer or removal of the machine hereby leased can only be made with the consent of the lessor, or his successor, legal representatives, or assigns; and that if a sale, lease, transfer, or removal of said machine shall be made or attempted by the lessees, or by any legal officer, representative, or assignee, as the property of said lessee, without the consent of the lessor or his successor, legal representatives, or assigns, this lease and license shall thereupon terminate and expire, and the possession of the said machine shall thereupon revest in the lessor, his successor, legal representatives, or assigns, and he or they may take possession of the said machine without the lessee having any claim for the repayment of

any part of the sum or sums which he may have paid as consideration for the delivery of this lease and license, or for rent or license under this instrument.

2d. That in case the lessee refuses or neglects to perform or violates any of the conditions of this lease and license, or in case of death, insolvency, bankruptcy, or retiring from business, the lessor, his successor, legal representatives, or assigns, shall have the right to terminate this lease and license by giving written notice to the said lessee that he has elected so to do; and upon the giving of such notice this lease and license shall be terminated, and the title and possession of said machine shall thereupon revest in the lessor, or his assigns, free and discharged of this lease and license; and the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, may thereupon enter the premises where said machine may be, and may take and remove the same, and the lessee shall have no claim whatever
185 on account of any sum or sums he may have paid for or under this lease and license.

3d. That this lease and license shall continue (provided the lessee complies with the terms and conditions thereof) until the expiration of all the letters patent which the lessee is hereby licensed to use, or any extensions or renewals of the same; and upon the expiration thereof the lessee shall deliver to the lessor, his successor, legal representatives, or assigns, the machine hereby leased, in good order, natural wear and tear alone excepted; and the said lessee shall thereupon, if he has kept all the conditions of this lease and license, have the right to purchase said machine for the sum of one dollar.

Sixth. The said licensee agrees that he will allow the said licensor, his successor, and assigns, and his and their agents, at any time hereafter, to attach an indicator or counter to any machine embracing any of the patents hereby licensed, which now is or which may hereafter come into the possession of said licensee, for the purpose of recording work done by said machine, and to examine, modify, repair, or replace the said indicator; and that he, the said licensee, will not disturb or interfere with, nor permit any one else to disturb or interfere with, any indicator which may be placed upon a machine as aforesaid. It is hereby agreed by the parties aforesaid that the rates of license shall be the same for all the lessees and licensees of the said lessor, that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished at any time by the lessor giving written notice to all the lessees, by mail, as hereinafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the lessor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the lessee, before the first of July of the year preced-
186 ing. And the deposit of the said schedule in the post-office in Boston, addressed to the lessee at his post-office address, shall be held to be a delivery thereof to said lessee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the lessor, as above mentioned.

In witness whereof the parties aforesaid have hereunto put their hands and seals with the understanding that the number of the machines may be entered after signing.

The above lease and agreement is subject to agreement signed by B. C. Tilghman, February 27th, 1873.

B. C. TILGHMAN, [L. S.]
Per his Attorney.
GORHAM BLAKE, [L. S.]
PAGE, HARDING & CO. [L. S.]

Complainant's Exhibit No. 10.

BOSTON, *February 27th*, 1873.

MESSRS. PAGE & HARDING:

DEAR SIRS: I understand from you that the expense hitherto incurred upon the sand-blast machine at your warehouse amounts to about twenty-one hundred dollars ($2,100), but that you think some of the bills are exorbitant and may be somewhat reduced in amount.

In the present condition of the business I am not prepared to make positive arrangements with you as to terms of license, but I will guarantee that if terms of license satisfactory to you are not made hereafter either by myself or the proposed company, I will remove the
187 machine and pay you its cost. Also, that if satisfactory terms of license can be agreed upon, whatever part of the expense already incurred has been in excess of the cost of a good-working machine shall be repaid to you.

Please let me know whether this is satisfactory to you.

Very truly yours,
(Signed) B. C. TIGHMAN.

Complainant's Exhibit No. 4.

License No. 10.

This license and agreement, made the 10th day of February, A. D. 1874, by and between Benjamin C. Tilghman, of Philadelphia, of the first part, and Simpson, Hall, Miller & Co., of Wallingford, Conn., of the second part, witnesseth:

That the party of the first part, in consideration of one dollar to him paid by the said party of the second part, the receipt of which is hereby acknowledged, and of the covenants hereinafter set forth, doth license the party of the second part to use the process and invention called the "Sand-blast process," as described in the letters patent of the United States, granted to said B. C. Tigham, on the 8th day of October, A. D. 1870.

This license is granted upon the following terms and conditions, which the licensee covenants to keep and perform:

188 First. The said licensee hereby agrees to pay the licensor, his successor, or assigns, in cash for the same, according to the rates of license in force during the month when the work is done. And whenever required by the licensor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said licensee, and to have free access at all times to the premises where the process is operated, for the purpose of verifying the returns aforesaid.

Second. The said licensee hereby agrees that he will not, in any way, contest the validity of any of the patents he is hereby licensed to use,

or the validity of the title of the said licensor, or of his successor, legal representatives, or assigns, to said patents or any of them.

Third. This license shall not be assignable by the licensee.

Fourth. The said licensee is, by this license, authorized to use the process hereby licensed only in metallic table ware.

Fifth. It is hereby agreed by the parties aforesaid, that the rates of license shall be the same for all licenses; that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but may be diminished at any time by the licensor giving written no-
189 tice to all the licensees by mail, as hereafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the licensor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the licensee before the first of July of the year preceding. And the deposit of said schedule in the post-office in Boston, addressed to the licensee at his post-office address, shall be held to be a delivery thereof to said licensee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the licensor, as above mentioned.

Sixth. In case the licensee shall fail to keep and perform any of the terms and conditions of this license, the licensor, his assigns and legal representatives, may terminate and cancel the same by giving to the licensee written notice of his election so to do.

Seventh. This license shall continue (provided the licensee observes all the terms and conditions thereof) during the full term of all the letters patent aforesaid, held and to be held by the licensor, and all extensions and renewals thereof.

The royalty shall be at the rate of four hundred dollars per year for each machine or gun of $\frac{3}{8}$ inch orifice, payable monthly to agents in Boston, Mass.

In witness whereof the parties have hereunto set their hands the day and year aforesaid.

(Signed) B. C. TILGHMAN,
Per his attorney GORHAM BLAKE.
SIMPSON, HALL, MILLER & CO.
SAMUEL SIMPSON, *President.*

190 Complainant's Exhibit No. 5 is the original of Exhibit No. 4.

Exhibit No. 6 is the printed form of Exhibit No. 2, the parts erased in Exhibit No. 2 not being erased in No. 6.

Exhibit No. 7 is the license to the Hemmingray Glass Company for a flat-glass machine and for cutting flat glass, and is, in all other respects, the same as Exhibit No. 2.

Exhibit No. 8 is the original of Exhibit No. 2.

Complainant's Exhibit No. 9.

[Copy.]

License No. 7.

This lease and agreement, made the first day of July, A. D. 1873, by and between Benjamin C. Tilghman, of Philadelphia, Pa., of the first part, and Page, Harding & Co., of Boston, Mass., of the second part, witnesseth:

That the party of the first part, in consideration of one dollar to him

paid by the said party of the second part, the receipt of which is hereby acknowledged, doth lease unto the said party of the second part one flat-glass sand blast machine, No. seven (7), constructed according to
the specifications and embodying the invention commonly called
191 the "Sand-blast process," as contained and set forth in letters patent of the United States granted to B. C. Tilghman on the eighth day of October, A. D. 1870; and also embodying other patents which the said party of the first part now has or may hereafter obtain, applicable to the said process. And the said party of the first part doth hereby license the said party of the second part, and operatives in his employment, to use said machine and process upon the terms and conditions hereinafter set forth. And the said party of the first part doth also hereby license the said party of the second part to use the said patented process above mentioned, for flat glass, for the term of the existence of said patent, and of all renewals and extensions of the same; and also all patents which the said party of the first part now has or may hereafter obtain, whether as original patentee, or by assignment or license, applicable to said machine and process and all extensions and renewals of the same: Provided, however, and this lease is made and this license is granted on the condition that the party of the second part shall faithfully keep and perform all the conditions herein contained, on his part; and upon breach of said conditions, or any of them, by the party of the second part, the party of the first part, his successor, legal representatives, or assigns, may, at their option, cancel and terminate this lease and license; and upon written notice thereof by the said lessor, his successor, legal representatives, or assigns, to the said lessee, this lease and license shall terminate, and possession of said machine shall thereupon revest in said lessor, his successor, legal representatives, or assigns. And the said party of the second part hereby agrees to keep and perform all the conditions of this lease and license, to wit:

192 First. The said lessee hereby agrees to keep a detailed account of all work done by him or by any other person for him, or for others, by the aid of the machine hereby leased; or by the use in any way of the said sand-blast process, which account shall specify the amount done each day on each variety of work specified in schedules to be furnished to said lessee by the said first party. And within the first five days of each month said lessee agrees to render to the lessor, his successor or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the lessor, his successor or assigns, in cash for the same, according to the rates of license in force during the month when the work was done. And whenever required by the lessor, his successor, legal representatives, assigns, or authorized agents, he or they shall be allowed to examine the original books, accounts, and employees of said lessee, in order to verify the returns aforesaid. And the said lessee agrees to give the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, free access at all times to the premises where the machine hereby leased is stored or the process is operated, for the purpose of verifying the lessee's reports.

Second. The said lessee hereby agrees that he will not in any way contest the validity of any of the patents he is hereby licensed to use, or the sufficiency of their specifications, or the validity of the title of the said lessor, or of his successor, legal representatives, or assigns, to said patents, or any of them.

Third. This lease and license shall not be assignable by the lessee.

Fourth. The said lessee is by this lease and license authorized to use the machine hereby leased only in flat glass.

Fifth. The following are agreed to by the parties aforesaid as the terms of lease of the machine which the lessee is hereby licensed to use:

193 1st. That the power conveyed by this lease and license is only the right to use said machine, and not the right to make or sell any machine embodying the patents aforesaid, or any of them; that a transfer or removal of the machine hereby leased can only be made with the consent of the lessor, or his successor, legal representatives, or assigns; and that if a sale, lease, transfer, or removal of said machine shall be made or attempted by the lessees, or by any legal officer, representative, or assignee, as the property of said lessee, without the consent of the lessor, or his successor, legal representatives, or assigns, this lease and license shall thereupon terminate and expire, and the possession of the said machine shall thereupon revest in the lessor, his successor, legal representatives, or assigns, and he or they may take possession of the said machine without the lessee having any claim for the repayment of any part of the sum or sums which he may have paid as consideration for the delivery of this lease and license, or for rent or license under this instrument.

2d. That in case the lessee refuses or neglects to perform or violates any of the conditions of this lease and license, or in case of death, insolvency, bankrup'cy, or retiring from business, the lessor, his successor, legal representatives, or assigns shall have the right to terminate this lease and license, by giving written notice to the said lessee that he has elected so to do; and upon the giving of such notice this lease and license shall be terminated, and the title and possession of said machine shall thereupon revest in the lessor or his assigns, free and discharged of this lease and license; and the said lessor, his successor, legal representatives, or assigns, or his or their authorized agent or agents, may thereupon enter the premises where said machine may be, and may take and remove the same, and the lessee shall have no claim whatever on account of any sum or sums he may have paid for or under this lease and license.

194 3d. That this lease and license shall continue (provided the lessee complies with the terms and conditions thereof) until the expiration of all the letters patent which the lessee is hereby licensed to use, or any extensions or renewals of the same; and upon the expiration thereof the lessee shall deliver to the lessor, his successor, legal representatives, or assigns, the machine hereby leased, in good order, natural wear and tear alone excepted; and the said lessee shall thereupon, if he has kept all the conditions of this lease and license, have the right to purchase said machine for the sum of one dollar.

Sixth. The said licensee agrees that he will allow the said licensor, his successor and assigns, and his and their agents, at any time hereafter, to attach an indicator or counter to any machine embracing any of the patents hereby licensed, which now is or which may hereafter come into the possession of said licensee, for the purpose of recording work done by said machine, and to examine, modify, repair, or replace the said indicator; and that he, the said licensee, will not disturb or interfere with, nor permit any one else to disturb or interfere with, any indicator which may be placed upon a machine as aforesaid. It is hereby agreed by the parties aforesaid that the rates of license shall be the same for all the lessees and licensees of the said lessor; that the schedule of rates, as hereto annexed, shall not be increased before December 1st, 1874, but

may be diminished at any time by the lessor giving written notice to all the lessees, by mail, as hereinafter provided; that the schedule of rates may be increased for the year commencing January 1st, 1875, or any ensuing year, by the lessor sending three copies of the altered schedule of rates, mailed on different days, to the post-office address of the lessee, before the first of July of the year preceding. And the deposit of the said schedule in the post-office in Boston, addressed
195 to the lessee, at his post-office address, shall be held to be a delivery thereof to said lessee, and is admitted and accepted by him as if to him personally delivered; and the rates so fixed for any year shall not be increased for said year, but may be diminished at any time by the lessor, as above mentioned.

In witness whereof the parties aforesaid have hereunto put their hands and seals, with the understanding that the number of the machine may be entered after signing.

The above lease and agreement is subject to agreement signed by B. C. Tilghman February 27th, 1873.

B. C. TILGHMAN, [L. S.]
Per his Attorney.
GORHAM BLAKE. [L. S.]
PAGE, HARDING & CO. [L. S.]

Exhibit No. 11 is the original of No. 9.

196 *Agreed copy of defendants' affidavit read at the hearing of the motion for injunction.*

C. C. U. S., E. D. P.

BENJAMIN C. TILGHMAN
vs.
THOMAS R. HARTELL AND JOHN LETCHWORTH.

Thomas R. Hartell and John Letchworth, the defendants in the above stated suit, being severally duly sworn according to law, do depose and say that they deny all the allegations and averments of said bill which charge that they are operating machines under complainant's patent for sand blast without a license from him, and which charge that they ever agreed or promised to sign, execute, or accept the license which the complainant alleges that he tendered to them; and, on the contrary thereof, they aver that they are now and since October last have been engaged in the business of manufacturing glass, &c., upon and by means of machines which were sold to them by complainant through his agent, Gorham Blake, for that express purpose, under and in pursuance of an express agreement made by and between complainants and these defendants, which agreement was as follows, viz: In the autumn of 1873 M'r R. A. Tilghman, the agent of complainant, proposed to John Letchworth, one of the defendants, that Hartell and Letchworth, the defendants, should go into the sand-blast business in Philadelphia, under the patent of the said complainant, upon the following terms, to wit: The complainant would furnish the machines for said business, being his patent machines, and put them up at defendants' works in Phila-
197 delphia, and the defendants were to operate said machines, and were to pay to complainants a certain royalty upon each article manufactured by them, which royalty would be fixed by a schedule to be furnished by Gorham Blake, the agent and business manager of com-

plainant, and were to have the exclusive privilege and license of the business in Philadelphia, and were to render monthly statements or accounts to the said Gorham Blake of the business done by them and pay him the royalty thereon according to the said schedule, and that they were to have and retain the use, custody, and control of said machines in Philadelphia so long as they continue diligently to carry on the said business and to pay the said royalties as aforesaid. That after some consideration the said proposition was accepted by the said Hartell and Letchworth, and the agreement so made was subsequently affirmed by the said Gorham Blake. At that time defendants were engaged in other branches of the glass business, and in order to perform their part of said agreement they sold out a part of such other business at great sacrifice, and purchased, at an expense of upwards of three thousand dollars, machinery and fixtures essential to said business, and auxiliary to the machines furnished by complainant to them, and complainant having furnished the said last mentioned machines, they, in October, 1873, commenced the sand-blast business, under and by virtue of the said agreement so made by the complainant with them as aforesaid. That on the 30th of October, 1873, after the complainant had furnished the said machines and these defendants had commenced the said business, M'r Gorham Blake wrote a letter to these defendants from New York, and on the 1st of November, 1873, he sent them from Boston a printed and written "schedule of royalties," signed by him "agent;" copies of this letter and schedule are hereunto annexed, marked "B;" and on the 7th of November, 1873, he wrote another letter to defendants from Boston, enclosing another schedule of royalties and
198 blank forms for monthly returns to complainant, all signed by him as "agent;" copies of this last letter are also hereunto annexed, marked "C."

These letters and schedules were received and accepted by defendants as the final performance by complainant of his part of said agreement, and these defendants aver that said agreement was fully and fairly made and entered into by and between the said complainant, acting by his said agents, R. A. Tilghman and Gorham Blake, and that it amounts to a full and complete license to defendants to use said machines and carry on the said business as aforesaid. That these defendants never made any other agreement with the complainant than the one above mentioned. And they deny that the nature of the license and agreement issued by the complainant, the mode of accounting, and of changing the license rate, were ever mentioned and explained to John Letchworth, or to either of the defendants, except to the extent and in the manner which was agreed upon as hereinbefore stated. And these defendants deny that they, or either of them, then, or at any time, did agree (as in said bill is alleged) to execute a regular license and agreement, the same as issued to other licensees in the same business. On the contrary, they aver that the agreement hereinbefore stated by them is the only agreement ever made by and between them and the complainant, and is the agreement under which the complainant furnished the machines as aforesaid, and under which they commenced the said business. And they further aver that it was not until March 4th, 1874, after they had been carrying on said business for more than four months, that the complainant alleged or claimed that there was any such agreement as that stated in the said bill, when, for the first time, the said Gorham Blake presented to these defendants a schedule of royalties differing essentially from these under which defendants were work-

ing, and demanded that they should accept the same. These
199 defendants refused so to accept, because it was inconsistent with the agreement under which they were working. And they say further that after they had commenced to operate said machines under said agreement, to wit, in December, 1873, they in good faith, in pursuance of their said agreement, sent to Gorham Blake, complainant's agent, by mail to Boston, their check for $38.60, in payment of the royalties due under said agreement for November, for which they received by mail a letter from the said Gorham Blake, agent, acknowledging the receipt and enclosing a formal receipt for "sand-blast royalty for November;" a copy of said letter of acknowledgment and receipt are hereto annexed, marked "F." That they have regularly, once in every month since, sent a statement and check for the month's royalty, which were regularly received by M'r Blake and accepted by him for several months, and down to May, 1874, when he returned the check then sent him; and for every month since, up to the present month, the said defendants have in like manner sent a monthly statement and check for the amount of the month's royalty, all of which checks, since May last, the said Gorham Blake has returned to the defendants. And these defendants further say that they are ready and willing to pay the amount of the said checks so returned to them whenever the said Blake will accept the same, and they claim that they have tendered him the said amounts, he having requested defendants to send him check for the said monthly royalties as aforesaid. And these defendants further say that on the 4th of April, 1874, the said Blake having demanded payment for the said machines so furnished to them, defendants, by complainant as aforesaid, these defendants paid him the price thereof, to wit, the sum of $649, and received from him, as the attorney of the complainant, a bill of sale and receipt, copies of which are hereunto annexed, marked "M."

200 And these defendants say further that it was no part of said agreement, nor did they, nor either of them, ever agree or consent that the said complainant and his agents should have the right to visit and inspect the said machines. These defendants, however, granted them such a privilege for several months after the commencement of the said business, but many of the processes employed by defendants in their said business are secret and known only to defendants and their workmen, and in order to protect these secrets they have found it necessary to exclude all persons from said factory except their own employees; they have, however, at all times given complainant and his agents free permission to examine their books and accounting, at any time when they might feel disposed so to do.

"And the defendants further aver that to stop their business at this time by an injunction would be an irreparable injury to them, inasmuch as they have, upon the faith of the agreement hereinbefore stated, embarked a large capital in said business, and are now engaged in filling contracts based upon the schedule of royalties furnished them by the said Gorham Blake, as aforesaid, while they have paid or tendered to the said complainant the full amount of his royalties to the present time, and are ready and willing to pay the same whenever he shall be willing to accept payment thereof."

(Signed) THOMAS R. HARTELL.
JOHN LETCHWORTH.

201 And afterwards, to wit, on the third day of April, in the year of our Lord one thousand eight hundred and seventy-six, this cause having been argued by counsel for the respective parties upon

the pleadings and proofs, the opinion of the court was delivered by the honorable William McKennan, which, being read and filed, is as follows, to wit:

202 In equity.

TILGHMAN
v.
HARTELL & LETCHWORTH.

Opinion by McKENNAN, Circ. J., April 3d, 1876.

The relief which the complainant seeks by his bill is contested on the ground that the court has no authority to grant it. There is nothing upon the face of the bill to warrant this objection, for it contains the usual averments of a bill for the infringement of a patent, coupled with an averment of an incomplete arrangement with the defendants for a license to use the patented invention, and prays for the appropriate relief of a discovery, an injunction and account. It therefore presents a case which is clearly within the jurisdiction of the court.

The plea of the defendants, however, alleges that a license was actually granted to them by the complainant to practice the invention described in his patent. If this fact be true, it is a complete answer to the bill, because it would be beyond the power of the court, in this case, to decree the relief prayed for as the result of an inquiry touching the fulfillment or non-fulfillment of a contract between the parties. The only jurisdiction which the court has of such a subject is conferred by act of Congress, and is limited to "suits in law or equity arising under the patent or copyright laws of the United States." Now, if a contract has been made investing the defendants with a right to use the complainant's patent property, an injunction and an account could only be decreed as the consequence of an adjudication that the defendants had forfeited this right by reason of non-compliance with the terms upon which it was granted. But whether such an adjudication ought to be made would depend "altogether upon the rules and principles of equity, and in no degree whatever upon any act of Congress concerning patent rights." (Wilson, Sanderson & Musgrove, 10 Har., 99.) If this plea then is sustained by the proofs the bill must be dismissed.

The only witnesses examined in the cause are the defendants and two gentlemen who were agents of the complainant. They all agree in stating that the subject of a license to use the sand-blast process, as the complainant's invention is designated, was the subject of discussion, and that negotiations touching it were carried on, on different occasions, between one or other of the defendants and one or other of the complainant's agents. But did these negotiations attain the completeness of a determinate contract?

It was manifestly contemplated by both parties that a license to use the patented invention would be furnished to the defendants, and this was to be the conventional basis and evidence of their right to such use. That this license was to be in writing or printed is clearly shown by the proofs.

It was, therefore, essential to constitute a contract between the parties, investing the defendants with a right to use the invention, that such license should be delivered to and accepted by the defendants. Without this there was nothing to bind the complainant to allow the use of his invention for any period, nor the defendants to render a conventional consideration for the enjoyment of such right. Upon this

hypothesis the defendants acted; for when the complainant's agent, at different times afterward, transmitted to them a printed schedule of royalties charged for the use of the sand-blast process, and a printed blank for a monthly return to the complainant of the various kinds and amount of work done by it, they regarded these papers as constituting the license for which they had previously negotiated. In this, however, they were obviously in error. The purport and object of these papers are plain upon their face, and they certainly do not, by any possible construction, concede any right to the defendants to use the process to which they relate.

But some time afterwards a formal printed license, embodying the terms upon which it was granted and was to be enjoyed, was sent in duplicate by mail to the defendants, one copy of which was to be retained by them and the other to be returned with their signatures. No answer was made to this suggestion, and in a subsequent interview with one of the complainant's agents the defendants refused to sign any license or agreement, taking the ground that they had authority to use the invention in the papers before furnished to them.

Under such a state of facts there is no warrant for the assumption by the defendants that they were licensed to use the complainant's invention, and so their plea, which sets it up, must be overruled.

It is, however, argued that the defendants purchased from the complainant three machines, which were especially adapted to work the patent process, and that such purchase carried with it the right to use the process until they were worn out. But the proofs show that the complainant furnished only parts of these machines, and that he did not hold a patent for any of them. What implication such a sale might warrant it is unnecessary to discuss, because it is very clear that the right to use the process at all was dependent upon an express license to that effect by the complainant. As it does not appear that such a license was obtained by the defendants, it follows that they had no right to work the process upon any machine.

The answer of the defendants admitting the complainant's title to the invention described in the bill, and the use of it, there must be a decree for an injunction and account, as prayed for, with costs.

203 And afterwards, to wit, on the eighteenth day of April, in the year last aforesaid, the said court make and pronounce their final order and decree as follows, to wit:

This cause having been brought to a final hearing upon the pleadings and proofs, and counsel for the respective parties having been heard, and the same having been duly considered by the court, it is found and hereby ordered, adjudged, and decreed that the letters patent No. 108408 granted unto the said Benjamin C. Tilghman on the eighteenth
204 day of October, in the year of our Lord one thousand eight hundred and seventy, is a good and valid patent, being the patent referred to in the complainant's bill, and that the said Benjamin C. Tilghman was the original and first inventor of the improvement described and claimed in the said patent, and also that the said defendants have infringed upon the said patent and upon the exclusive rights of the complainant under the same.

And it is further ordered, adjudged, and decreed that the complainant do recover from the defendants the profits and gains which the said defendants have made or received, or which have arisen or accrued to them from said infringement of said patent by the manufacture, use, or sale

of the improvement described and secured by said letters-patent
205 at any and all times from the first day of April, A. D. 1874, to the first day of April, A. D. 1876, which are by agreement fixed at fourteen hundred and eighty-seven dollars, together with $78.80 as costs incurred by said plaintiff, amounting in the aggregate to $1,565.80, and that execution therefor.

And it is further ordered and adjudged and decreed that a perpetual injunction be granted in this suit against the said defendants, enjoining them from making, using, or selling the improvements described in letters-patent of said Tilghman, according to the prayer of the bill.

206 And afterwards, to wit, on the eighteenth day of April, in the year last aforesaid, the parties aforesaid, by their respective solicitors aforesaid, come into court and file a stipulation as to damages and profits, which, being read, is as follows, to wit:

It is hereby agreed by and between the parties to the aforesaid suit, that the amount to be recovered by said plaintiff from said defendant for damages or profits down to the entry of the final decree in said case, viz, the 18th day of April, A. D. 1876, shall be $1,487.12, as though the said amount had been duly reported by a master in the cause, this
207 amount being fixed by agreement to avoid delay and trouble, and with the express understanding that it is not to be used as the measure of profits or damages in any other suit or litigation between the parties hereto or between other parties.

GEO. HARDING, *for Pl'ff.*
M. DAN'L CONNOLLY,
For Def'ts.

208 And afterwards, to wit, on the eighteenth day of April, in the year last aforesaid, the defendants aforesaid come into court and pray an appeal to the Supreme Court of the United States, which is allowed in open court, and a bond for the prosecution of said appeal to the Supreme Court of the United States is filed, which, being read, is as follows, to wit:

Know all men by these presents that we, Thomas R. Hartell and John Letchworth, residing at 15 North Fifth street, in the city of Philadelphia, State of Pennsylvania, and John B. Hay, residing at Winslow, in the county of Camden, State of New Jersey, are held and firmly
209 bound unto the above-named Benjamin C. Tilghman in the sum of three thousand five hundred dollars, to which payment well and truly to be made we do bind ourselves and each of us, our and each of our heirs, executors, administrators, and every of them, jointly and severally, by these presents, sealed with our seals and dated the twentieth day of April, A. D. one thousand eight hundred and seventy-six.

Whereas the above-named Hartell & Letchworth have commenced the prosecution of an appeal to the Supreme Court of the United States to reverse the decree rendered in the above-entitled suit by the said circuit court of the United States for the eastern district of Pennsylvania:

Now, therefore, the condition of this obligation is such that
210 if the above-named Hartell & Letchworth shall prosecute their said appeal to effect and answer all damages and costs if they

shall fail to make good their said appeal, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

THO'S R. HARTELL. [L. S.]
JOHN LETCHWORTH. [L. S.]
JOHN B. HAY. [L. S.]

Signed, sealed, & delivered in the presence of—
A. S. LETCHWORTH.
SAMUEL BELL.

Bond approved and appeal allowed in open court.

W. McKENNAN, *Cir. J.*

AP'L 20, '76.

211 UNITED STATES OF AMERICA,
Eastern District of Pennsylvania, sct:

I, Samuel Bell, clerk, do hereby certify the foregoing to be a true and faithful copy of the record and proceedings of the circuit court of the United States in and for the eastern district of Pennsylvania, in the third circuit, in a certain suit in equity therein lately depending between Benjamin C. Tilghman, complainant, and Thomas R. Hartell and John Letchworth, defendants.

In testimony whereof I have hereunto subscribed my name and affixed the seal of the said circuit court at Philadelphia this 20th day of June, A. D. 1876, and of the Independence of the said United States the one hundredth.

[SEAL.]

SAMUEL BELL,
Clerk Circuit Court U. S., E. D. of Pa.

212 Supreme Court of the United States, of October term, in the year of our Lord one thousand eight hundred and seventy-six.

THOMAS R. HARTELL AND JOHN LETCHWORTH, appellants,
vs.
BENJAMIN C. TILGHMAN, APPELLEE.

Appeal in equity from decree of the circuit court of the United States for the eastern district of Penn'a. Entered April 18th, 1876. (Oct. term, 1874. No. 41.)

Afterwards, to wit, on the first Monday of October, in this same term, before the justices of the Supreme Court of the United States, at the Capitol, in the city of Washington, come the said Hartell and Letchworth, by their attorney, , and say that in the record and proceedings aforesaid there is manifest error in this, to wit, that the court erred in entertaining jurisdiction of the suit, the parties being citizens of the same State, and there being no controversy in regard to any law of the United States or concerning the validity of a patent.

There is also error in this, to wit, that the record shows that the said appellants (the respondents in the court below) obtained possession
213 of three machines patented by the said Benjamin C. Tilghman (the complainant in the court below), under the said B. C. Tilghman's promise (made by his attorney in fact) that the said appellants should have the right and privilege to operate the said patented machines and employ the process incident to such operation so long as

they paid the royalties fixed and determined by a certain schedule forming part of said record; that said record further shows that said royalties were promptly paid so long as accepted, and after refusal to accept were regularly tendered to the said B. C. Tilghman, and that there was error in enjoining the said Hartell and Letchworth from the use of said machines and the employment of said process.

There is also error in this, to wit, that it appears from the record that the patent on which this suit is brought embraces a claim for a machine, and also a claim for a process; that appellants bought of the said B. C. Tilghman three machines constructed according to said patent, and paid for the same; that said purchase gave them the right to use said machines until worn out, and to employ the patented process necessarily incident to such use, and that there is error in not recognizing
214 such right and in enjoining them from the use of said machines, and from the practise of said patented process.

There is also error in this, to wit, that the said patent should be construed as a patent for a machine and not for a process or mode of operation, and that so construed effect should have been given to the purchase of and payment for the three patented machines as conveying to the purchasers (the respondents in the court below) the right to use said machines until worn out, and to continue during the same time the employment of the process incident to such use.

There is also error in this, to wit, that it appears from the record that when the said appellants (the respondents in the court below) bargained for the said three patented machines, they were informed that a written license would not be required to entitle them to employ the alleged patented process, and that it further appears that payment for said machines was made and received after they had refused to accept a license on the terms proposed, and that there is error in enjoining them from using said machines because they have no written license to employ the process.

215 There is also error in this, to wit, that the record shows that the proofs of complainant in the court below do not sustain the material allegations in his bill contained, and that there is error because said bill was not dismissed.

There is also error in this, to wit, that by the record aforesaid it appears that the decree given was given for the said Benjamin C. Tilghman against the said Hartell and Letchworth, whereas the said decree ought to have been given in favor of the said Hartell and Letchworth against the said Benjamin C. Tilghman, and the said Hartell and Letchworth pray the decree aforesaid may be reversed, annulled, and altogether held for nothing, and that they may be restored to all things which they have lost by the occasion of the said decree.

W'M HENRY RAWLE,
Attorney for Appellants.

(Indorsed:) Supreme Court U. S. 1876, October term. No. 727. Hartell & al. vs. Tilghman. Assignment in error. Filed 30th September, 1876.

(Indorsement on cover:) No. 172. Thomas R. Hartell and John Letchworth, appellants, vs. Benjamin C. Tilghman. E. Pennsylvania C. C. U. S. Filed 30th September, 1876.

REC. 172—8

No. 172.

IN THE

SUPREME COURT

OF THE

UNITED STATES.

Of October Term, 1876. No. 727.

HARTELL & LETCHWORTH, Appellants,
(RESPONDENTS BELOW,)

VS.

B. C. TILGHMAN, Appellee,
(COMPLAINANT BELOW.)

Appeal from the Circuit Court of the United States for the Eastern District of Pennsylvania.

BRIEF FOR APPELLANTS.

M. D. CONNOLLY,
WM. HENRY RAWLE,
For Appellants.

W. H. PILE, Printer, 422 Walnut Street.

HISTORY OF THE CASE.

About July, 1873, the complainant, (the present appellee,) being the patentee of the "Sand Blast" invention, agreed to furnish the defendants, (the present appellants,) with certain patented machines by which to carry on the sand blast business as applied to glass and zinc, and these the defendants agreed to accept, (Record, page 2, 17.) The defendants version of the agreement, (Record, p. 17,) was that the machines were to be furnished by the complainant at his expense, and in consideration thereof the defendants were to pay a fixed and unchangeable royalty on all articles operated on thereby, and were to retain the custody and use of the machines as long as the royalties were paid. The complainant's version was that the royalty was not to be fixed and unchangeable but was, at complainant's option, subject to be thereafter increased.

The defendants thereupon expended about three thousand dollars in providing suitable appliances for the business, and complainant furnished the machines which cost about six hundred dollars, (Record, p. 65.)

At the same time the complainant gave the defendants certain written and printed schedules of the royalties or tariffs to be paid, (Record, p. 56,) and the business was thereupon commenced.

The defendants continued to operate the machines for about four months, and regularly every month paid the complainant the royalties due according to the tariff agreed upon, (Record, p. 60.) These payments were duly accepted by the complainant.

In March, 1874, the complainant sent to the defendants a bill for the machines and a blank "license and agreement," (Exhibit B to the bill,) which they were asked to execute, (Record, p. 26-65-66.)

In this paper the complainant reserved the right to increase

the royalties without limit after January, 1875, and without further notice than by mailing three copies of the altered schedule of rates.

The defendants declined to execute this paper on the ground that it varied the terms of their original contract.

They however offered to pay for the machines, and payment was made (April 4, 1874, Record 65,) and accepted by the complainant, and this after the defendants' refusal to execute the paper.

On the same day, April 4th, the complainant's agent endorsed on defendants' old schedule a rate for frosted zinc, which until then had been left open for future adjustment, (Record, p. 27, 57.)

And on April 10th the defendants paid to the complainant the royalty due for the month ending April 1st, (Record p. 15, 65.)

On April 25th the defendants were notified that they were *infringing* the complainant's patent, and were required to desist from further using the same, and on May 1st the complainant sent another license to the defendants, requesting them to sign it if satisfactory, (Record, p. 66.)

In October this suit was brought. The bill alleged that the patent was for a process; that the defendants had agreed to execute a license and agreement by which the license rates might be thereafter changed; that such license had been tendered to, and refused by the defendants, by reason whereof the latter were violating the letters patent, and the bill prayed, in the usual form of bills for infringement, for an injunction and account.

The defendants in a plea and answer, relied on their agreement with the complainant to have the use of the machines so long as they paid the royalties according to the schedule furnished; that those royalties had been duly paid and accepted; that the machines themselves had also been paid for, and hence there was no breach of contract or default.

During the progress of the suit and until the decision, the defendants continued to use the patented machines and to send to the complainant monthly statements of work done, accompan-

ied by a tender of payment of royalties due according to the schedule aforesaid, but these were declined by the complainant.

Upon the case coming on to be heard upon bill, answer, replication and proofs, the decision of the court below, (McKennan, J.,) was that the defendants had infringed the patent because they had no written license to use the invention, and the decree was that the defendants should desist from making, selling or using the same, and that the complainant should recover the profits and gains accrued during the pendency of the suit.

From this decision the defendants appealed.

ABSTRACT

OF

ASSIGNMENTS OF ERROR. (Record, p. 112.)

1. Want of Jurisdiction in the Court below.

2. The proofs show that the defendants were authorized to use the invention so long as they paid the royalties agreed upon, and that such royalties had been regularly paid.

3. The complainant's patent embraces a claim for a machine and a process, and by the purchase of the machines the defendants acquired the right to use the process incident thereto.

4. The patent should be construed as a patent for a machine and not for a process.

5. It appears by the proofs that no written license was to be required, and subsequently to the defendants' refusal to sign such license, the complainant ratified the prior agreement.

6. The proofs do not sustain the averments in the bill.

7. The decree should be reversed.

ARGUMENT.

I.

THE CIRCUIT COURT HAD NO JURISDICTION.

The jurisdiction can only be supported upon the ground either,

1. Of the citizenship of the parties; or,

2. That the suit "arises under the patent laws of the United States."

Revised Statutes, tit. 13, ch. 7, § 9.

But,

1. The parties were citizens of the same State and City. The bill is by "B. C. Tilghman of Philadelphia," against "Hartell & Letchworth of Philadelphia."

2. The case arises, not under the patent laws, but from the contract of the parties.

The statute of 4 July, 1836, § 17 (5 Stat. at Large, p. 124), provides,

"That all actions, suits, controversies, and cases *arising under any law of the United States*, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the Circuit Court of the United States, or any District Court having the power and jurisdiction of a Circuit Court; which courts shall have power, upon bill in equity filed by any party aggrieved, in any such case, to grant injunctions, according to the course and

principles of Courts of Equity, *to prevent the violation of the right of any inventor as secured to him by any law of the United States*, on such terms and conditions as said Courts may deem reasonable."

The statute of 8 July, 1870, § 55 (16 Stat. at Large, p. 206) provides,

"That all actions, suits, controversies, and cases *arising under the patent laws of the United States*, shall be originally cognizable, as well in equity as at law, by the Circuit Courts of the United States; or any District Court having the powers and jurisdiction of a Circuit Court, or by the Supreme Court of the District of Columbia, or of any Territory; and the Court shall have power, upon bill in equity filed by any party aggrieved, to grant injunctions according to the course and principles of Courts of Equity, *to prevent the violation of any right secured by patent*, on such terms as the Court may deem reasonable; and upon a decree being rendered in any such case *for an infringement*, the claimant [complainant] shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby."

And the Revised Statutes similarly provide that the Circuit Court shall have jurisdiction of cases "arising under the patent or copyright laws of the United States."

Revised Statutes, tit. 13, ch. 7, § 9.

The present case does not fall within the provisions of any of these statutes. It is strictly an action *ex contractu*. It is admitted that the defendants purchased from the complainant, and paid him in full for the machines used by them, (see check and complainant's receipt, Record, p. 65). Hence the property and possession of these machines were lawfully vested in the defendants. Nor is it material that the complainant alleges that his patent was for a process and not for a machine. As a matter of fact, in the very lease presented to the defendants, these machines were described as "one sand blast *machine*, No. ——, *constructed according to the specifications*, and EMBODYING THE INVENTION

commonly called the 'sand blast process,' as contained and set forth in letters patent of the United States, granted to B. C. Tilghman on the 18th day of October, A. D. 1870." (Blake + Q. 68, Record p. 75; Complainant's Exhibits 2 and 3, Record, 97, 98.)

And "when a patented machine rightfully passes to the hands of the purchaser from the patentee, or from any other person by him authorized to convey it, the machine is no longer within the limits of the monopoly, and is no longer under the peculiar protection granted to patent rights. Whenever a valid sale of the patented article is thus made, it then becomes the private property of the purchaser, and is no longer protected by the laws of the United States." Goodyear *v.* Beverly Co., 1 Clifford, 348, 356. Per Clifford, J.

But however this may be, the defendants were using *the process itself* by the voluntary act of the complainant and under an express verbal contract with him. There is and can be no dispute as to the amounts or royalties which, under that contract, were payable by the defendants to the complainant. There is and can be no dispute that those royalties were duly paid by the defendants to the complainant, and accepted by the latter down to the time when there commenced the dispute as to the terms of the agreement, and that they were duly tendered from that time until suit brought. The dispute itself was simply as to those terms—as to whether the royalties should be fixed, or should be subject to increase at the complainant's option, as to which latter it may be said, that there is not even a suggestion that the royalties *would* have been so increased.

The complainant's theory of his case (and upon which his bill was ingeniously framed), viz., that by reason of this dispute and of the defendant's non-compliance with their agreement to execute his form of license, they became infringers, as though no prior agreement had ever existed, is not only opposed to principle and authority, but is unsupported by the facts. Such a theory was rejected by this Court in Wilson *v.* Sandford, 10 Howard, 99, *infra*, p. 10; and it confuses all the settled distinctions between contract and tort.

It is not denied that a verbal contract existed between these parties, under which the invention was used for many months. In direct recognition and part performance of this contract, the complainant furnished machines for such uses, and the defendants paid for them; (admitted in the bill, Record p. 2; and by the affidavit annexed thereto, Record, p. 13.) So, months before any dispute arose, the complainant further sent the defendants both printed and written schedules of royalties, monthly blanks, and sand blast diaries, accompanied by a letter expressing the complainant's hope of receiving large returns from the defendants. (Record, p. 57.) It was upon this basis, that for half a year royalties were regularly paid and received, and the defendants expended thousands of dollars for improvements. These facts are not only admitted, but form part of the complainant's case. So, after the defendants refused to execute the form of license tendered, the complainant accepted payment for the machines, and moreover ratified the previous agreement by endorsing upon the schedule under which the defendants were then working, a new rate for an article until then left open for future adjustment. (Record, p. 27.) So, too, the entire correspondence assumes an existing arrangement, (Record, p. 56-66,) and it is impossible to intelligently construe the conduct of both parties otherwise than as based upon a present contract to be more fully consummated in the future.

Hence when the license was presented for execution, the sole question (and, indeed, the only dispute) was as to the terms of the license, and not at all as to the obligation to accept a proper license, which indeed the defendants are and always have been willing to do. In another tribunal, therefore, where alone the case is cognizable, the simple point for determination would be the ordinary one of the construction of a parol agreement—*i. e.*, what was the contract between the parties? Was it agreed that the royalties should be fixed and unchangeable, or were they subject to increase at the complainant's option? Or, to state the point differently, was Exhibit B such a license as the defendants were bound to execute under their prior contract?

Now it may be that if one uses a machine under an agreement so to use it for three months, he becomes an infringer upon the fourth month.

It may be (although this is doubtful) that if one uses a machine under an agreement to execute a license thereafter, he becomes an infringer when he refuses to execute it.

And in both these cases, the Federal jurisdiction may attach.

But when the case appearing upon the record is one wherein an agreement for the use already exists, and the dispute is simply whether the license subsequently tendered conforms to the original agreement, the Federal jurisdiction cannot attach, for clearly the question does not arise "under the patent laws of the United States."

If an injunction and account are necessary to protect the complainant, the Chancery powers of the State Courts are amply adequate for this purpose; Sherman *v.* Transportation Co., 31 Vermont, 162; Slemmer's Appeal, 58 Pa. St. 164; Merserole *v.* Collar Co., 6 Blatchford C. C., 357.

So, the complainant's theory subverts the settled distinction between contract and tort. If goods are delivered in accordance with a parol agreement, it cannot be pretended that a subsequent breach of the agreement, or a dispute concerning its terms, would entitle the seller to bring an action of *tort*, or, still more, to seize the goods themselves. So, if property voluntary passes upon the faith of an express promise which is never complied with, it cannot be pretended that the vendor is entitled to bring replevin to recover their possession, or to bring trover for their conversion. If so, the property of every insolvent would belong to the creditors who supplied the remaining assets of the estate. It is familar that the converse proposition is expressly recognized by the common law, in allowing the exceptional right of stoppage *in transitu*.

If, therefore, this case is cognizable by the Circuit Court, then the breach of any contract relating, however remotely, to patents, will be drawn within the Federal jurisdiction. As was forcibly

said in the somewhat analogous case of Burr *v.* Gregory, 2 Paine C. C. 426:

"The question is reduced to the single point, whether, because the subject-matter of the contract was a patent right, it gives the Courts of the United States jurisdiction. This we think would be too large a construction of the Constitution and laws of the United States. If the validity of the patent, or the assignment, could be drawn in question, it might alter the case; but the amount prayed for, growing out of the profits of a patent right, cannot vary the case. If the Court can entertain jurisdiction in this case, it may in every contract where the consideration is the sale of a patent right. A bond or note given for such consideration might be sued upon in this Court."

Hence the distinction, steadily maintained by this Court in all similar cases, is that

WHEN THE CONFLICT BETWEEN THE PARTIES GROWS OUT OF THEIR CONTRACT RELATING TO A PATENT, OR OUT OF THEIR LICENSE, OR THE TERMS OF A LICENSE TO BE THEREAFTER GRANTED TO USE A PATENT, AND DOES NOT ARISE FROM THE PATENT ITSELF, the Federal Courts will not entertain jurisdiction of the suit.

In other words, as was said in Slemmer's Appeal, 58 Pa. St. Rep. 164.

"Courts of the United States refuse to take cognizance of cases between citizens of the same State where they involve not the infringement of the patent, but controversies growing out of contracts of which it is merely the subject matter."

Thus, in Wilson *v.* Sandford, 10 Howard, 99, a bill was filed in the Circuit Court alleging that a license to use a patent had been granted to the defendants upon condition that certain notes should be punctually paid—that it was expressly agreed and so appeared in the license itself that if the notes were not paid at maturity the license was to be absolutely determined "*as though it*

had never been made"—that the notes were overdue and not paid —that notwithstanding this, the defendants still continued to use the machines *and were thus infringing the patent*, and praying for an account and injunction. The bill was dismissed in the Circuit Court, and, upon appeal, was dismissed by this Court for want of jurisdiction.

"The appellees," said Taney, C. J., in delivering the opinion, "demurred to the bill, and at the final hearing the demurrer was sustained and the bill dismissed. * * * Now the dispute of this case does not arise under any act of Congress; nor does the decision depend upon the construction of any law in relation to patents. It arises out of the contract stated in the bill, and there is no act of Congress providing for or regulating contracts of this kind. The rights of the parties depend altogether upon common law and equity principles. The object of the bill is to have this contract set aside and declared to be forfeited; and the prayer is, 'that the appellant's reinvestiture of title to the license granted to the appellees, by reason of the forfeiture of the contract, may be sanctioned by the Court,' and for an injunction. But the injunction he asks for is to be the consequence of the decree of the Court sanctioning the forfeiture. He alleges no ground for an injunction unless the contract is set aside. And if the case made in the bill was a fit one for relief in equity, it is very clear that whether the contract ought to be declared forfeited or not, in a court of chancery, depended altogether upon the rules and principles of equity, and in no degree whatever upon any act of Congress concerning patent rights. And whenever a contract is made in relation to them, which is not provided for and regulated by Congress, the parties, if any dispute arises, stand upon the same ground with other litigants as to the right of appeal."

Upon principle, it is impossible to distinguish this case from the present, and it will be noted that it was even stronger than this, for there neither the royalties nor license had been paid, while the contrary is here admitted. To the same effect is Hartshorn *v.* Day, 19 Howard, 211.

Goodyear *v.* Rubber Co., 4 Blatchford, 63, is exactly in point. The bill averred that the plaintiff had granted certain manufacturers licenses to the defendants upon the latter covenanting to pay certain tariffs as well as to keep correct accounts and permit the licensor to inspect the books, &c. The tariffs had not been paid for three years and the defendant had refused to permit any inspection of its books. An injunction was thereupon prayed to restrain the defendant from further infringing the plaintiff's patent and it was held that the Court had no jurisdiction.

"If," said the Court, "in the use of the thing granted, the licensee does not perform his covenants, although, there is by such non-performances, a violation of the rights of the patentee, *such violation is not a violation of the rights of the patentee as secured by a law of the United States, but a violation of his rights as secured by the covenants.* He has, by the license or grant, parted with a portion of that which was secured to him by the laws of the United States, and in lieu therof, taken a right secured by a covenant. *If a patentee parts with the whole right secured by his patent either for cash, or upon the purchaser's entering into a covenant to pay him a certain sum of money, or to do certain other things, the patentee has, after such sale, no right vested in him secured by act of Congress.* A suit to enforce the covenants would not be a case arising under a law of the United States."

So in Blanchard *v.* Sprague, 1 Clifford, 288, a bill was filed between citizens of the same State, *charging the defendant with infringing certain patent rights, and praying for an injunction and account.* It appeared by the proofs that the defendant was using one of the complainant's machines under a license for one year, renewable yearly, at a certain tariff therein mentioned, and it was expressly provided, as alleged here, that the complainant might increase the tariff upon notice. For some years the renewals had been omitted, but the tariff had been regularly paid and received without objection, and, subsequently, the complainant declared his intention of restraining the defendant from further using this machine, unless a new license was obtained at an increased rate of tariff.

Upon final hearing the bill was dismissed. "No dispute," said Justice Clifford in delivering the opinion, "arises in this case under any act of Congress, nor does the decision depend in any respect upon the construction of any law of Congress in relation to patents. On the contrary *it arises entirely out of the agreement, express or implied, for a license,* and the rights of the parties depend altogether upon the ordinary rules of law, and the general principles which regulate and control the decision of the Court in equity suits. *What the complainant really claims is that he terminated or revoked the license under the agreement which previously existed between the parties by giving the notice, and that the respondent subsequently continued to use the machine without any stipulation as to the rate of tariff.* In accordance with this theory, he assumes that, in accepting the one and one half cents from that date to the filing of the bill, he reserved the right to claim and recover an additional half cent for all such articles as were manufactured by the respondent within that period, and that by virtue of that reservation he is entitled to recover that amount in addition to what he has received as a reasonable compensation for the use of the machines. Looking at the claim from that point of view, and it is the one in which it is presented by the evidence, it furnishes no ground whatever for an injunction, for the reason that it presupposes that the use of the machine was not unlawful, and presents a case, on the facts disclosed, for which the complainant has a plain and adequate remedy at law. But suppose it were otherwise, and that his remedy in equity would be more effectual, and that it was a fit case for equity cognizance, it would not benefit the complainant in this suit, for the reason that it does not depend in any degree whatever upon any act of Congress respecting patent rights. Whenever a contract is made in relation to patent rights which is not provided for and regulated by an act of Congress, the parties, if any dispute arises, stand upon the same ground as other litigants in respect to the jurisdiction of the Court; Wilson *v.* Sandford, 10 Howard, 100. *Both these parties are citizens of the same State:*

and if the pleadings corresponded with the real nature of the controversy, it is clear beyond dispute that this Court could have no jurisdiction of the case. Goodyear *v.* Day, 1 Blatch., 565. Jurisdiction is not controlled, however, solely by the pleadings, but the case itself must be one within the cognizance of the Court where the suit is brought. Where it appears at the trial that there is no question involved in the case which it is competent for the Court to decide under the pleadings, the cause must be dismissed notwithstanding the allegations of the bill may be sufficient to authorize the Court to take cognizance of the suit. In this case it appears by the bill of complaint that both complainant and respondent were citizens of the State of Massachusetts at the time the bill was filed; *and there is no question involved in the controversy giving the Court jurisdiction on account of the subject matter of the suit,* I am of opinion that the relief prayed for in the bill of complaint cannot be granted."

So, too, in the converse case of Merserole *v.* Union Paper Collar Co., 6 Blatchford, C. C. 357, the bill averred that the plaintiffs were induced to purchase a certain license from the defendants upon the strength of representations made by the latter as to the validity of the patents covered thereby—that these patents were void for want of novelty—that the consideration for the purchase of the license had failed—that the plaintiffs had paid some tariffs under the license, and that the defendants were claiming further tariffs; and the bill prayed that the defendants might be enjoined from collecting further tariffs, that the patents be declared void, that the assignment of the license be cancelled, and that the tariffs previously paid be refunded. The defendants demurred for want of jurisdiction and the demurrer was sustained.

"So far," said the Court, "as regards the right of the defendants to sue the plaintiffs upon the license, to recover from the plaintiffs the tariffs reserved therein, and the right of the defendants to alienate their interest under the license, and their right to hold in force, as against the plaintiffs, the license and the

agreement made by the plaintiffs in the assignment of the license to them, and the right of the defendants to retain the amount of tariffs paid by the plaintiffs, it needs no argument to show that those rights arise, all of them, out of and under the license and the agreement and the transactions thereunder, and not, in any proper and legal sense out of or under the patents or the law under which they were granted; and that this suit, so far as it seeks to impair or destroy those rights, has the same origin and basis. It is well settled that such a subject-matter does not confer on this Court jurisdiction of a suit. (Wilson *v.* Sandford, 10 Howard, 99; Goodyear *v.* The Union India Rubber Co., 4 Blatch., C. C. R. 63.) Whether the suit be one by a licensor, to enforce the covenants contained in a license granted under a patent, as in the cases just cited, or be, like the present suit, one by a licensee, to destroy and annul a license and its covenants, it is equally impossible to find, in the subject-matter, any basis for the jurisdiction of this Court. So far as the suit is based on any alleged false respresentations made by the defendants, it arises out of a fraud committed by the defendants, and not under any act Congress.

"If the license and the agreement of the plaintiffs are void because the patents are void, the fact that the plaintiffs must show that the patents are void, in order to get rid of the license and the agreement, does not make the case one arising under the patent act, so as to give this Court jurisdiction of it. A State Court has jurisdiction to decree the license and agreement to be void and inoperative for fraud, or any other adequate reason; and the fact that, in the investigation the State Court will be obliged to enquire whether there was anything new in the patents which could operate as a consideration for the license and the agreement, cannot deprive the State Court of jurisdiction, or confer it on this Court."

To the same effect are Goodyear *v.* Day, 1 Blatch. C. C., 566; Burr *v.* Gregory, 2 Paine, C. C., 426; Hill *v.* Whitcomb, 1 Holmes, 317, 322; Pulte *v.* Derby, 5 McLean, 328, 336. And the law is thus stated in Curtis on Patents, § 496:

"Where the controversy at issue does not turn upon the letters patent themselves, but rather upon the force of some contract under them, *e. g.* an assignment or license which acknowledges their validity, in such cases the jurisdiction appertains, as in other contracts, to the State Courts, and can only be brought into the United States Courts on some other grounds, *e. g.* that of citizenship or residence which would justify the application."

So in appeal of Henry T. Slemmer, 58 Penna. St. Rep. 163, the Court, (per Sharswood, J,) said. "It has been settled * * that the State Courts have no cognizance of either actions at law or bills in equity, in which the question of the validity of a patent is directly involved; Parsons *v.* Bernard, 7 Johns., 144; Livingston *v.* Van Ingen, 9 Johns., 582; Dudley *v.* Mayhew, 3 Comst. 9; Gibson *v.* Woodworth, 8 Paige, 132; Parkhurst *v.* Kinsman, 2 Halst. Ch. R. 608. But though patent rights are peculiarly within the jurisdiction of the Courts of the United States, yet it is undoubtedly true that when they come in question collaterally, their validity may become a subject of inquiry in the State Courts. Thus in a suit upon a prommisory note, if it is set up as a defence that the consideration was the sale of a patent right, and that the patent is void, so that there was in fact no consideration, the State Courts constantly exercise jurisdiction; Bliss *v.* Negus, 8 Mass., 46; Cross *v.* Huntley, 13 Wend. 385; Rich *v.* Atwater, 16 Conn., 414; Burr *v.* Gregory, 2 Paine, C. C., 429; Rheem *v.* Holliday, 4 Harris, 347. The jurisdiction is not defeated because the subject-matter of the action concerns the use of a patent right, so long as the question of the validity of the patent is not neceesarily involved, but arises only incidentally and by way of defence; Sherman *v.* The Champlain Transportation Company, 31 Vermont, 162; Tomlinson *v.* Ballet, Law's Dig. 229. Accordingly the Courts of the United States refuse to take cognizance of cases between citizens of the same State where they involve not the infringement of the patent, but controversies growing out of contracts of which it is merely the subject-matter; Goodyear *v.* Day, 1 Blatchf. 565;

Burr *v.* Gregory, 2 Paine, 436; Brooks *v.* Stolley, 3 McLean, 523. The result of the authorities, then, appears to be that the State Courts are competent, either at law or in equity, to enforce a contract or a trust, of which a patent right is the subject-matter, where the validity of the patent is not directly in question, and even to pass on that, when it arises *ex necessitate*, as by way of defence in an action on a contract."

Nor does the case of Brooks *v.* Stolley, 3 McLean, 523, conflict with these views. That decision was doubtless well determined upon its particular facts, and did not at all primarily involve a question of contract. It was based entirely upon the ground of forfeiture of a license by reason of non compliance with the precedent condition of the weekly payment of royalties. It is expressly stated in the report (p. 524,) "*The defendant admitted his failure to make payment*," and defended on the ground of the invalidity of the patent.

That this is the true construction of the case is shown by the later decision of Pulte *v.* Derby, 5 McLean, 328, 336, wherein the same learned judge explained his former opinion by saying "In Brooks *v.* Stolley, I stated that where the controversy grew out of the license or contract, the Circuit Court had no jurisdiction. In that case, however, Stolley *having forfeited his contract by refusing to make the payments required*, it was held that Wilson's right under the patent was a ground of jurisdiction."

If it be sought to extend Brooks *v.* Stolley beyond this limitation, then that case is opposed to both prior and subsequent authorities.

If, in the present case, the royalties had not been paid, the decision might have come within the doctrine of Brooks *v.* Stolley. But such is not the fact, and even the view taken in Brooks *v.* Stolley has been repudiated by later cases in this Court and elsewhere; (see *supra.*)

And the law is the same in England.

In Crossley *v.* Dixon, (10 House of Lords Cases, 293,) it was held that where a verbal agreement had been made to pay certain

royalties for the use of patented machines, such agreement constituted a license. The Lord Chancellor, (Lord Westbury,) there said:

"It is very material to observe that the respondent bought the machines altogether. It is not a case therefore in which the appellants being the owners of the machines, hired them out to the respondent, but it is a case in which he began the transaction by purchasing and paying for the machines that were prepared for him under the superintendence of the appellants. It consequently follows that the royalties which have been regularly paid *eo nomine* by the respondent must of necessity have been paid by the one party and received by the other in respect of the right to use the patent inventions that were embodied in the machines so supplied. That agreement subsists at the present moment, and the respondent is using the machines which he so bought and is recognizing his relation as a licensee of the appellants by paying the appellants the royalty, a payment that can be attributed to nothing but to the patent rights in respect of which these machines have been constructed. * * * It is palpable that so long as the agreement made by the appellants with the respondent that the respondent shall be at liberty to use the invention, paying certain royalties, continued, there is no limit to the extent of the respondent's user, and it would therefore have been impossible for them to bring an action for an infringement against the respondent. There could be no infringement pending the license. The license continues, and the extent of the remedy, therefore, can only be that which is sought by this bill, namely, an account of the royalties claimed by the appellants in respect of every machine used by the respondent, whencesoever derived, which embodies in it these inventions in respect of which the agreement to pay royalty was originally made between the appellants and the respondent, and is now subsisting."

The Court below, however, seemed to think that the objection to the jurisdiction was cured by the averments in the bill—

These averments were:—

"That the defendants agreed to execute a regular license and agreement, the same as issued to other licensees in the same business. On the faith of that agreement, machinery was supplied * * but the defendants * * did positively refuse to execute the license and agreement," which was an infringement of the complainant's rights, and in violation of his letters patent. The Court said, "The relief which the complainant seeks by his bill is contested on the ground that the Court has no authority to grant it. There is nothing upon the face of the bill to warrant this objection, for it contains the usual averments of a bill for the infringement of a patent, coupled with an averment of an incomplete arrangement with the defendants for a license to use the patented invention, and prays for the appropriate relief of a discovery, an injunction and account. It *therefore* presents a case which is clearly within the jurisdiction of the Court." (Record, 109.)

But with great deference to the learned Court it is submitted that this can hardly be.

Upon what does jurisdiction depend? Not the skill of the pleader, but the facts as they appear upon final hearing on bill, answer, replication and proofs. Every student knows that even consent cannot give jurisdiction.

In Wilson *v.* Sanford, 10 Howard, 99; Blanchard *v.* Sprague, 1 Clifford, 288; Hill *v.* Whitcomb, 1 Holmes, 317, precisely the same averments appeared, yet the bill was dismissed; and in Blanchard *v.* Sprague, this very suggestion of the Court below was considered and thus answered,

"Jurisdiction is not controlled however solely by the pleadings, but the case itself must be one within the cognizance of the Court where the suit is brought. Where it appears at the trial that there is no question involved in the case which it is competent for the Court to decide under the pleadings, the cause must be dismissed, notwithstanding the allegations of the bill may be sufficient to authorize the Court to take cognizance of the suit."

II.

UPON THE MERITS THE CASE IS WITH THE DEFENDANTS.

The sole difference between the parties is as to the *terms* upon which the invention shall be used, and not at all as to the *right* to use it.

The proofs will be considered in reference to,

1. The case of the complainant.

2. The case of the defendants.

THE CASE OF THE COMPLAINANT.

The bill alleged that about midsummer 1873, one of the defendants applied for a license to use the sand blast process; that the nature of the license to be issued was explained to him; and that "he then agreed to execute a regular license and agreement, the same as issued to other licensees in the same business. On the faith of that agreement machinery was supplied;" that the cost of this machinery was repaid, but that subsequently the defendants refused to execute the license tendered, (Exhibit B,) "being the same issued to others in the business." (Record, p. 2.)

To sustain these averments, it was incumbent on the complainant to establish by his proofs:

1st. That at the time when the alleged agreement was made with Letchworth, viz., "about midsummer 1873," the complainant had already "issued to others in the same business" a "regular license and agreement."

2nd. That this "regular license and agreement," is the same as the form annexed to the bill of complaint, marked B.

3d. That Letchworth "then" (*i. e.* "about midsummer 1873), agreed to execute a regular license and agreement," namely, the same as Exhibit B.

4th. That a "regular license and agreement," the "same as issued to others in the same business," was presented to the defendants for execution, and that they refused to execute the same.

Now the complainant's proofs show:

1st. That at the time alleged (*i. e.* about midsummer 1873), there was "no regular license and agreement" "issued to others in the same business."

2nd. That at the time in question, the complainant had in his possession, and had possibly "adopted" a "form" of "license and agreement," but that this had not been "issued to others in the same business," and was not so issued until a later period, viz., September, 1873.

3d. That the "license and agreement" "adopted" by the complainant at the time in question, and issued "to others in the same business" at a later period, is wholly different from Exhibit B.

4th. That the "form," Exhibit B, was not "adopted" by, nor even drafted for the complainant until January 1874, some six months after the period when it is alleged Letchworth agreed to execute the same.

5th. That Letchworth did not "then," at the time in question, agree to "execute a regular license and agreement," either the same as complainant's exhibit B, or any other, but merely inquired as to the terms upon which complainant would grant to defendants the right and privilege of using his patented invention.

These points stand out clearly in the testimony.

a. As to the existence of a "regular license and agreement" issued to "other parties in the same business" at the time alledged, it became incumbent on complainant to show

I. That there was in existence at that time such a paper.

II. That it had been issued "to other parties in the same business."

The complainant, pressed by the necessity of proving these two points, produced licenses and agreements issued to Hemmingray Glass Company, and Page, Harding & Company.

(Complainant's exhibits Nos. 2, 3, 7, 8 and 9, Record, 97-103.)

1. These licenses purport to have been executed and are dated on July 1, 1873, but the manuscript for their forms was not even sent to be printed until after that time. G. Blake, Record, p. 82.

"Q. 162. About what time was said form sent to be printed?

A. From the first to the middle of July, 1873."

2. One of them was not executed until "some time after," the other not till September, 1873. (Same witness. Record, pp. 72 and 73.)

"+Q. 33. Were they executed on the day they bear date?

A. They were not; they were executed, sir, some time after.

+Q. 34. About how long after?

A. I do not remember how long after."

And same witness's answer to +Q 100, Record, p. 77:

"A. I have not found any memoranda that would give me the date of the execution of Page, Harding & Co.'s license, but have found a memorandum of my being in Cincinnati *about the 18th of September*, 1873, and think the license of Hemmingray & Co. may have been signed at that time, or it may have been sent them by mail about that time."

b. Next, as to the difference between the *forms of license* "issued to other parties in the same business" and exhibit B.

First. The former, (the Hemmingray Company's and Page, Harding & Co.'s articles) are *leases of machines*, while exhibit B is a *license to use a process.*

(Hemmingray Company Lease, Record, p. 97:)

"That the party of the first part in consideration of one dollar to him paid by the said party of the second part, the receipt of which is hereby acknowledged, doth *lease* unto the said party of the second part *one four-globe machine* No. 9, (nine,) constructed according to the specifications and embodying the invention commonly called the "sand blast process" as contained and set forth in letters patent of the United States, granted to B. C. Tilghman, on the 8th day of October, A. D., 1870."

While Exhibit B recites:

"That the party of the first part, in consideration of one dollar to him paid by the said party of the second part—the receipt of which is hereby acknowledged—and of the covenants hereinafter set forth, doth *license* the party of the second part to use the *process and invention* called the "sand blast process" as described in the letters patent of the United States, granted to said B. C. Tilghman, on the 8th day of October, A. D., 1870.

Secondly. Exhibit B is limited to the original term of the letters patent; the other leases include "all extensions and renewals of the same."

The leases to Hemmingray Glass Company and Page, Harding & Co. provide that the lessees at the expiration of the term of the letters patent, or any renewals or extensions of the same, shall, if he has kept all the conditions of this lease and license, "have the right to purchase said machine for the sum of one dollar."

Exhibit B contains no similar provision.

Thirdly. Under the leases, the patentee would be required to furnish to the lessors, without expense to the latter, the patented machine, and the lessee at the expiration of the term of the patent, would have the right to purchase the patented machine for the nominal sum of one dollar.

Under exhibit B the licensee would be at the expense of constructing the machine and would be in danger of being enjoined at any time, through failure to fulfil any one of the conditions of the license, from using it.

The plea of defendant and their understanding of their agreement with complainant, conform substantially to the terms of the leases to the other parties.

The bill avers that defendant Letchworth agreed to execute exhibit B—which leads to the next inquiry—when was the form exhibit B first drafted and printed. (See testimony of Gorham Blake, Record, pp. 82 and 83.)

"Q. 164. State what was the next form of license that you had printed.

"A. It is the form of license in defendant's Exhibit I. and L.,' [the same form as Exhibit B.]

Q. 165. What legal advice, if any, was taken as to this change in the form of license?

"A. I made a change in form of license, by the advice of Mr. George Harding of Philadelphia, leaving out the parts pertaining to machinery.

Q. 166. When was this form of license printed?

A. I think *in January*, 1874."

Now it is clear that if this form was not printed until January, 1874, it could not have been the "regular license and agreement" that was "issued to other parties in the same business" at the time when it is alleged Letchworth agreed to execute such "regular license and agreement." So that the averment of the bill on this point is not only unsupported, but is directly contradicted by complainant's proofs

c. As to Letchworth's promise to execute a "regular license and agreement."

The bill avers that Letchworth applied to R. A. Tilghman, as complainant's agent, to "obtain a license to use the sand blast process," and "he then" (*i. e.* "about midsummer 1873") agreed to execute a regular license and agreement.

And the proof is, Tilghman in testifying goes on to say: (see a to q, 197, Record, p. 86.)

"I then, [at an interview on the cars on the 26th day of August, 1873,] suggested that he should, *before making any positive arrangement*, visit our works in New York, and then see Mr. Blake, in Boston, who would supply him with a copy of our terms of license and official schedule of the rates of royalty, &c."

That Letchworth did not then agree to execute the "regular license and agreement" is made still more certain by same witness's answer to +Q 226. (Record, p. 91.)

"A. I understood Mr. Letchworth *not as binding himself then and there to take an unknown form of license*, but as communicating the desire of his firm to work by the sand blast process in case he should find the terms suitable and satisfactory."

And again, (Record, p. 93.)

+Q. 237. Did they [the defendants] commit themselves in any way on the occasion of that interview?

A. They committed themselves to the extent of making a positive application for the details of our license. *They did not commit themselves in that interview to accept said license, unless the result of Mr. Letchworth's visit to Mr. Blake and inspection of the factory, should confirm them in the desire they then expressed to have a license.*"

The next interview between Tilghman and Letchworth was three days later, and also on the cars. The former goes on to state that the latter told him he had seen Mr. Blake, and adds: (answer to Q. 199, Record, p. 87.)

"*I understood* from him *that he had settled everything satisfactorily with Mr. Blake*, and that his firm had now decided to go on and work under our license, and have the machinery put up as soon as possible, &c."

So that it does not appear that at *this* interview Letchworth "then agreed to execute a regular license and agreement," but at most, that Tilghman then understood that Letchworth had already made such an agreement with Blake.

Blake's testimony (Record, p. 78) is:

"+Q. 114. Did Mr. Letchworth then [August 1873] enter on behalf of his firm into any arrangements with you in reference to the use of the sand blast machines and processes?

A. *He did not.* I think he had not decided about it himself."

And in a previous answer of same witness, we find that Letchworth told the former that he had made no arrangement whatever with Tilghman.

Blake's testimony, (Record, p. 67.)

"A. I did see Mr. Letchworth about the 28th or 29th of August, 1873, at Mr. Nichols' factory; he asked me 'On what terms can we use the sand blast?' I asked him in reply to that, 'What arrangement have you made with Mr. Tilghman, and what did he say?' Mr. Letchworth replied: 'I have made no arrangement with him; he referred me to you as the business agent, to attend to the business matters.'"

The sum of all this is simply that Letchworth inquired of Tilghman the terms upon which defendants could go into the sand blast business, and was by Tilghman referred to Blake, the business agent, and Letchworth thereupon saw Blake, but entered into no arrangement with him. Blake states this positively. After Letchworth had seen Blake, but had entered into no arrangements with him, he again saw Tilghman, who then "understood" that the arrangement had been made with Blake.

There is nothing else whatever to support the averment of the bill that Letchworth "about midsummer, 1873," "agreed to execute a regular license and agreement," "the same as issued to other parties in the same business."

Now, as it cannot for a moment be doubted that there was *some* agreement made by and between the parties in pursuance of which the defendants obtained and worked the machines and

the complainant received the royalties, and as it appears that the agreement was not such as the bill alleges, the defendants' statement of what that agreement was must be accepted as the true one. Their version is found in Hartell's A. to +Q. 198. (Record, p. 41.)

THE CASE OF THE DEFENDANTS.

The defendants aver that they worked the patent in pursuance of an agreement with the complainant that they were to be provided with machines for whose use they were to pay royalties according to a scheduled tariff furnished them. Of these machines the complainant was to retain the ownership with power to remove them on failure of payment of royalties—until which default the defendants were to retain the machines, and the royalties themselves were to be unchangeable in amount. *Vide* Hartell's testimony, A. to Q. 9, (Record, p. 22;) Q's. 30 and 32, (Record, pp. 23, 24,) and +Q. 198, (Record, p. 41.) Letchworth's A. to Q's 219, 220, 221, 222, (Record, pp. 43, 44.) Save as to the unchangeableness of the royalties this averment of the defendants is fully borne out by the agreements alleged by the complainant to be then in force between him and other licensees.

See complainant's Exhibit No. 2, (Record, p. 98,) license to Hemmingray Glass Company:

"The following are agreed to by the parties aforesaid as the terms of lease of the machine which the lessee is hereby licensed to use:

1st. That the power conferred by this lease and license is only the right to use said machine * * * *

2nd. That in case the lessee refuses or neglects to perform any of the conditions of this lease * * * the lessor * * shall have the right to terminate this lease * * and * * may thereupon enter the premises where said machine may be and may take and remove the same."

3rd. That this lease and license shall continue, provided the

lessee complies with the terms and conditions thereof, until the expiration of all the letters patent which the lessee is hereby licensed to use, and upon the expiration thereof the lessee shall deliver to the lessor * * * the machine hereby leased, in good order, natural wear and tear alone excepted."

The consideration for such use of the machine was, as appears from the said exhibit, as follows:

"And within the first five days of each month, said lessee agrees to render to the lessor, his successors or assigns, said detailed account of all work done by him in the preceding month, and at the same time pay the lessor, his successor or assigns, in cash for the same, according to the rates of license in force during the month when the work was done."

So, that, in all essential respects, save as regards the complainant's privilege of changing the royalties, the defendants' view of the agreement conforms to the terms of the agreements which the complainant alleges were previously made with other parties.

If such was the agreement, it gave the defendants the right to use the machines during the term of the patent so long as they complied with the conditions which they were to perform—to keep the account of work done and pay the royalties therefor. There is no allegation or pretence that the defendants ever committed a breach of the conditions which would deprive them of the right to use the machines.

The royalties which the defendants were to pay had been settled upon a schedule agreed upon. These royalties they had duly paid. This schedule is what the defendants meant in testifying that they were promised "papers," for they expressly state that they never agreed to sign an agreement, and were informed by the complainant's agent that such document was unnecessary, as the complainant reserved to himself the ownership of the machines, and the right to take them away if the royalties were not paid. Hartell's A. to Q. 30, (Record, p. 24,) and +A. 166, (Record, p. 38,) and R. D. Q. 181, (Record, p. 40;) Letchworth's A. to Q.'s 218, 219, (Record, p. 43.)

That the defendants' view of the agreement under which they obtained the possession of the patented machines is the correct one, is borne out not only by the complainant's exhibits but by complainant's agent's acts.

After the patented machines were set up in the defendants' factory and had gone into operation, the complainant's agent, Blake, sent the letters marked Defendant's exhibits B. & C., (Record, pp. 56, 57.) This latter, it will be noted, makes no mention of a license, speaks of machines as complete and ready to operate, refers to diaries for keeping account of work done, and concludes with an expression of expectancy of large royalties. It is in effect an epitome of the agreement between the parties.

It virtually says:

We have furnished you with the machines; we now send you the blank diaries for account of work done. Proceed with the work, keep the accounts, send us the royalties and we shall be satisfied.

That is the only reasonable conclusion to be deduced from such a letter. That is the conclusion the defendants drew from it, because such conclusion exactly corresponded with their previous understanding, and because its terms naturally lead to such conclusion.

Does not such a letter, followed by the defendants' action in operating the machines, and by the complainant's action in receiving royalties for several months, constitute an agreement, or a course of conduct amounting to an agreement?

The complainant has alleged as a reason why a license was not tendered before March, 1875, that one of the machines was not in running order, and that the presentation of the license was deferred until it was put in such order. In support of this the complainant produces the defendant's letter of Nov. 15, 1873, (Compl's Ex. No. 1.) But Blake's letter of Nov. 7th shows, that at the time he wrote he believed the machines were running satisfactorily. If, then, a "license was to be signed at the time

the machines were completed;" (See Blake's testimony A. to Q. 13, Record, p. 68,) why was it not forwarded with the Blake letter of Nov. 7th; and is not the absence of any mention in said letter of a license and agreement to be signed, proof that no such article was contemplated at that time?

Again, the defendants were furnished with three machines:

1st.—A "Globe" machine.
2nd.—A "Flat Glass" machine.
3rd.—A "Boring" machine.

An inspection of the "licenses then in force," (as alleged by complainant,) will show that each machine was the subject of a separate lease or license.

Thus Complainant's Exhibit No. 2, is a lease to Hemmingray Glass Co. of a "globe machine." While Exhibit No. 7, is a lease of a "flat glass machine" to same company.

So that there was no reason why, if a license was required, one should not have been presented for each of the machines which were in running order, even if the license for the remaining machine was kept back until the latter was repaired.

III.

THE CONSTRUCTION OF THE PATENT AND THE EFFECT OF THE SALE OF THE MACHINES.

An examination of the claims of the patent will show that they embrace as well or as much the *means* whereby the "sand blast" is produced as they do the "sand blast" itself—the *means* being the machines which were sold to the defendants and are identified not only by the bill of sale (Record, p. 65,) but by the leases offered in evidence as "constructed according to the specifications, and embodying the invention commonly called the 'sand blast process,' as contained and set forth in letters patent of the United States, granted to B. C. Tilghman, on the 18th day of October, A. D., 1870."

The 3rd claim in the patent claims the combination of "*machines* capable of giving direct mechanical impulse with a stream of sand, as a *means* of giving velocity thereto," so that, according to the rule laid down by this Court in O'Reilly *v.* Morse, 15 Howard, 62, the patent must be construed to be for the means or machine whereby the useful result is obtained, and *for nothing more.*

It is there said, "Whoever discovers that a certain useful result will be produced in any art, machine, manufacture or composition of matter by the use of certain means, is entitled to a patent for it; provided he specifies the means he uses in a manner so full and exact that any one skilled in the science to which it appertains can, by using the means he specifies, without any addition to or subtraction from them, produce precisely the result he describes. And if this cannot be done by the means he describes, the patent is void; and if it can be done, then the patent confers on him the exclusive right to use the *means* he specifies to produce the result or effect he describes, *and nothing more.*"

See also Le Roy *v.* Tatham, 14 Howard, 156; Silsby *v.* Foote, 14 Howard, 218.

Under this construction, the only patentable feature about the invention, viz., the means employed for effecting the stated result, having been sold to and paid for by the respondents, they obtained by lawful transfer the right to the use of the entire patented invention, and should not be enjoined from the use of what they so purchased.

The 1st claim is the *cutting*, &c., of glass, &c., by sand used as a projectile, when the requisite velocity has been *artificially* given to it by *any suitable means*.

This claim is open to this three-fold objection:

1st. It claims the *doing* of an act, rather than the *means* whereby the act is done—which is expressly denounced in O'Reilly *v.* Morse, (*supra.*)

2nd. It claims, in effect, the doing of a certain act by means of sand *artificially* projected, which amounts to an admission (true as a matter of fact) that sand moved by natural agencies, *e. g.* winds, rivers, &c., has obtained velocity sufficient to produce the results claimed, *i. e.* the cutting, grinding, pulverizing, &c., of stone, metal, etc. As if one should claim broadly "the *artificial* evaporation of water by *any suitable means*" in the production of salt from brine, solar heat alone having been previously employed for that purpose.

3rd. It claims "any suitable means," when the means described, or their substantial equivalent, is all that can be lawfully claimed.

The 2nd claim is, virtually, for the "artificial combination" of sand with steam, air, or equivalent conveying medium or moving agent. Not to mention that the combination of sand and water constantly exists in a state of nature "the artificial combination" of sand and steam to produce a projection of, or to

give velocity to the former, is in common use on locomotive engines for the purpose of giving a roughened surface to the rails on which such engines run. The natural and the "artificial" combinations of these elements being thus found, the claim is reduced to the "use" made of the sand, such use being specified in the claim, "when the sand is used as a means of cutting, boring, grinding, &c., glass, &c.

But this character of claim is exactly what was pronounced invalid in O'Reilly *v.* Morse.

It appeared on the evidence that Morse was the first person to make use of the electro-magnetic fluid, as a moving force, to cause the vibration of an instrument suspended at the extremity of a long wire for the purpose of recording or marking intelligible signs or sounds. * * * * * * *

His claim was, in effect, the *use* of the electric or galvanic current for marking or recording characters at a distance—just as in the present case the claim is the *use* of sand as a projectile for cutting glass.

The 3rd claim has been already considered.

The 4th, 5th and 6th claims are for "new manufactures" *i. e.* glass, &c., which has been treated by the "sand blast." There is nothing in the patent or in evidence in this case to show that "articles of stone, &c.," treated by the "sand blast," are any different from similar articles treated according to methods previously known and practiced—*e. g.* that a glass globe roughened or frosted by the sand blast is different from one roughened by a wheel or tumbled in a sand-box.

These claims rely wholly upon the novelty of the process by which they are produced and not upon any novelty in the articles themselves. But

"It could not have been the intention of the statute that pins, matches, nails and other old articles in common use should be patented as new articles of manufacture simply because they were fabricated by the use of new and improved machinery unless the product itself was a new and improved product, and as

such possessing a novelty of its own, independent of the new devices or processes or arts by which it was produced;" Draper *v.* Hudson, Shepley, J., 3 Off. Gaz. Pat. Off., 354.

The 7th claim is for the *use* of

"1st. The *suction* produced by a jet of steam, air, water, &c.," which is manifestly invalid, as covering nothing that is not obtained by the use of a common steam injector or ejector, and

2nd. A strong close vessel or sand-box, into which the pressure of the steam, air, water, &c., is introduced and through which, when desired, a current of it may be made to pass," being a part of the machines sold by complainant to respondents, and not a patentable invention in itself.

If it be objected that this is a narrow construction to put upon a patent for a new, ingenious and valuable invention or discovery, the answer is

"In its naked ordinary sense, a discovery is not patentable. A discovery of a new principle, or law operating, or which can be made to operate on matter, will not entitle the discoverer to a patent. It is only where the explorer has gone beyond the mere domain of discovery, and has laid hold of the new principle, force or law, and connected it with some particular medium or mechanical contrivance by which or through which it acts on the material world, that he can secure the exclusive control of it under the patent laws. *He then controls his discovery through the means by which he has brought it into practical action, or their equivalent, and only through them.* It is then an invention, although it embraces a discovery. Sever the force or principle discovered from the means or mechanism through which he has brought it into the domain of invention, and it immediately falls out of that domain and eludes his grasp. It is then a naked discovery and not an invention. * * Every invention may, in a certain sense, embrace more or less discovery; for it must always include something that is new; but it by no means follows that every discovery is an invention. It may be the *soul* of an invention, but it cannot be the subject of the exclusive con-

trol of the patentee or the patent law until it inhabits a *body*, no more than can a disembodied spirit be subjected to the control of human laws;" Morton *v.* N. Y. Infirmary, 5 Blatch. 116.

This is the construction uniformly given by this Court in every case where a similar patent has been brought before it, and it is that which complainant himself put upon his own patent when he granted the leases he has offered in evidence. (Record, p. 97.)

Hence the complainant's patent should be construed as a patent for a machine.

Now, whatever may have been the original agreement between the parties, it is not disputed that for nearly half a year the defendants had uninterrupted and permissive possession of the machines, and at the expiration of this time duly purchased the same. (Record, p. 65.) Prior to this purchase the defendants held these machines by an uncertain tenure, but the effect of the sale was to invest them with full powers of using the same as absolute owners, subject to the payment of the royalties previously agreed upon. Hence any license for this purpose was needless.

The machines were not built to be merely looked at—they were intended for use and not for ornament, and it was for the privilege of such use that the respondents paid their money. A sale or purchase necessarily implies control, and where control does not pass, in cases where the genuineness of the sale is in question, the law will imply there is no sale. Conversely, where there is no doubt that the sale was made, the law will give control of the thing purchased to the purchaser. But is the mere holding control, when the right to use is denied?

"When the law doth give anything to one it giveth impliedly whatsoever is necessary for enjoying the same;" Co. Litt., 56.

"What a purchaser of a patented machine buys is the use of the whole machine;" Wilson *v.* Simpson, 9 Howard, 109.

"By a valid sale and purchase the patented machine becomes the private individual property of the purchaser, and is no longer

specially protected by the laws of the United States, but by the laws of the State in which it is situated. Hence it is obvious that if a person legally acquires a title to that which is the subject of letters-patent he may continue to use it until it is worn out;" Bloomer *v.* Millinger, 1 Wallace, 340.

"A sale by the patentee of a machine gives an implied right to use it;" Brooks & Morris *v.* Stolly, 4 McLean, 275.

"The grant of a machine is in law a grant of the use of it;" Reutgen *v.* Kanowrs, 1 Wash. C. C., 168.

And to the same effect are Chaffee *v.* Boston Belting Co., 22 How. 217; Mitchell *v.* Hawley, 16 Wall. 544.

In the present case, the use of the machines constitutes the process, and, as the sale of the machines gives the right to use, it carries necessarily the privilege to practise the process. Were this not true, the patentee might grant licenses to practice the process and then forbid the use of machines such as he has shown and described in his patent, on the ground that the license was for the process alone and did not include the right to use machines necessary for practising the same. He could thus twice dispose of his patented rights, once by the sale of machines and then again by the sale of licenses, and still reserve those rights to himself by enjoining the holders of the machines from practising the process for which they had no license, and the grantees of licenses from employing the patented machines which they had not purchased or obtained the right to use.

And even if it be held that the patent is not restricted to the means described but includes a process, still the sale of the machines necessarily carried with it a right to practise that process.

As has been already shown the sale of a machine is in law a grant of the right to use it, and as the use of the machines sold by the complainant constitutes what he styles his process, the right to practise the latter cannot be enjoined without denying that which the law has already given, viz: the right to use.

In Wetherill *v.* Passaic Zinc Co., 2 Off. Gaz. Pat. Off., 472, the learned judge, (McKennan,) held:

"It is urged that where a process requires the use of a peculiar machine or apparatus for its practice the right to use the process until the apparatus is worn out is within the protection of the act. *If the title to both was concentrated in the same person, and by the same patent, the argument would have perhaps unanswerable force.*"

In the present case, the title to the machines was in the complainant, and, if it be held that his patent included a process, the title to that was in him by virtue of the same patent, so that, in the language of the learned judge, the argument in favor of the defendants' right to use the process has "unanswerable force." Nor, if it be held that the patent is for a process only, and does not include the means for carrying such process into effect, is the right to use the machines, and to practice the process, any the less given to the defendants by the sale. Even if machines had not been patented machines; still if their use, the only use of which they were susceptible, necessarily involved the practice of the process, their sale was a license to use the latter. For, upon what principle of justice could the complainant sell the machines even if unpatented, receiving value therefore, and then deny the right to use them? How much more flagrant a violation of the sense of justice were it in the present case to deny the right to use the machines where they are not only claimed in terms in the patent but were sold by the complainant with the representation that they embodied "the invention commonly called the sand blast process?"

So it is submitted that the injunction is far too broad.

The injunction was:

"That a perpetual injunction be granted in this suit against the said defendants, enjoining them from making, using, or selling the improvements described in letters patent of B. C. Tilghman, according to the prayer of the bill." Record, p. 111.

But it is conceived that the defendant can only be enjoined from violating the contract as proved, and is entitled to any use which complies with that agreement.

This is elementary law of equitable jurisprudence, and was even admitted in the debatable case of Brooks *v.* Stolley, 3 McLean, 529, wherein the Court said,

"An injunction is prayed which, in effect, will annul the contract. * * * It appears to me that, short of this, adequate relief may be given. In this respect the case is altogether different from an ordinary case of infringement, where no contract has been made by the parties. In that case an absolute injunction is the only adequate relief; but, in the case under consideration, the complainants have licensed the defendant to use the patented right upon certain conditions. * * * Upon the whole I will allow the writ prayed for, to enjoin the defendant from the use of the machine. * * * Unless the defendant should do the things which, by the contract, he is bound to do, as the condition on which he is authorized to use the machine."

So in Day *v.* Hartshorne, 3 Fisher's Pat. Cas. 32, it was held that in similar cases, an absolute injunction will never issue, but that the defendant will only be enjoined to the extent of enforcing compliance with whatever may have been the contract of the parties."

M. D. Connolly,
Wm. Henry Rawle,
For Appellants.

Supreme Court of the U. S.

No. 172.

HARTELL & LETCHWORTH,

Appellants,

vs.

B. C. TILGHMAN,

Appellee.

APPELLEE'S BRIEF OF POINTS.

GEORGE HARDING,

Counsel for Appellee.

Supreme Court of the United States.

No. 172.

HARTELL & LETCHWORTH
Appellants.

vs.

B. C. TILGHMAN
Appellee.

FACTS OF THE CASE.

On the 29th of August, 1873, Appellant Letchworth and R. A. Tilghman, the representative of the Appellee, concluded a verbal agreement, which had for some time been under discussion between them. By this agreement the Appellee was to provide certain of the more intricate parts of the requisite machinery (in value about one-third of the whole), and to put the apparatus in good working order. The Appellants, when this was done, to re-imburse him for the expense incurred in doing so, and to operate the same sand blast process under a license, the provisions of which were discussed by them, and which, it was agreed should be the same as that issued to the other licensees.

Pursuant to this agreement, Mr. Tilghman ordered the agreed upon parts of the machines to be built; and about October 30th, the entire machinery was erected in Appellants factory under the directions of a competent workman, sent by him for that purpose. A bill for the material and work supplied was forwarded

at this time, but was not noticed by Appellants, who were not satisfied with the working of one of their three machines and notified Blake, Appellee's business man, of its defects. While this machine was being put in order they operated the others, paying the royalties upon the completed work according to a schedule furnished them by Blake, and making out their returns on certain blank forms, also provided by him.

Upon the completion of this third machine, about February 28th, 1874, Blake on March 4th, forwarded them another bill, and also forms of license, requesting their signature. They took no notice of this, and to Blake's reiterated demands for payment, and for signature of license they made evasive answers and excuses.

On the 4th of April, they payed the bill, and, though again excusing themselves from signing, promised to do so after consulting their counsel.

On the 25th of April, they finally refused to sign any license, and were then notified to cease the use of Appellee's process.

In the following fall the Appellee commenced suit against Hartell & Letchworth in the Circuit Court, for the infringement of his patent.

The Appellants in their plea, claimed to be working the sand-blast process under a license from him, and that the Court had no jurisdiction. They also contended in ~~agree~~argument that by reason of the purchase of certain devices used in the process, they had a right to use the invention. This defence is not set out in the answers, but was pressed in the ~~agree~~argument and passed upon by the Court below.

The Court below decided:

That the Appellants had no license under the patent.

That the purchase of unpatented devices used in the process by Appellants from Appellee, did not carry the right to use the process without a license.

APPELLEE'S POINTS.

I.

The Circuit Court had jurisdiction.

The bill was the ordinary one for the infringement of a patent right with prayers for an injunction, discovery and account. The issue of license or no license raised by Appellant's plea, was merely collateral and as such properly passed upon by the Court.

II.

It is not disputed that Appellants were to work the process under a written or printed license.

III.

The schedule and forms furnished Appellants, and which they claim to be their license, cannot *per se* be considered as such.

IV.

It does not appear that the parties minds ever met upon the schedule and forms furnished Appellants as being a license to use Appellee's patented process.

V.

Appellees patent being for a process (not a machine), the sale of unpatented devices used in the process does not carry any implication of a license.

ARGUMENT.

I.

THE CIRCUIT COURT HAD JURISDICTION.

The bill is founded on Letters-Patent, and the relief prayed for is an injunction, discovery and account. Appellant's argument is founded on a misconception. The Court was not asked to rescind, enforce, or construe a contract of license, the only question raised by appellant's plea, and to which all the testimony was taken, was whether they had a license or not.

The authorities upon the question of jurisdiction are not in conflict. In chronological order they stand as follows:

April, 1845. Brooks *vs.* Stolley, 3 McLean, 523, McLean, J.

October, 1846. Woodworth *vs.* Weed, 1 Blatch., 165, Nelson, J.

June, 1850. Wilson *vs.* Sherman, Id., 538, Nelson, J.

November, 1850. Woodworth *vs.* Cook, 2 Blatch., 160, Nelson, J.

December, 1850. Wilson *vs.* Sanford, 10 How., 99, Taney, C. J.

1852. Pulte *vs.* Derby, 5 McLean, 336, McLean, J.

November, 1855. Day *vs.* Hartshorn, 3 Fish., 32, Pitman, J.

1856. Goodyear *vs.* Congress Rubber Co., 3 Blatch., 453, Ingersoll, J., Nelson, J.

1857. Judson *vs.* Union Rubber Co., 4 Blatch., 66, Ingersoll, J.

1859. Bloomer *vs.* Gilpin, 4 Fish, 54 Leavitt, J.

1859. Blanchard *vs.* Sprague, 1 Clif., 299, Clifford, J.

1869. Meserole *vs.* Union Paper Collar Company, 3 Fish., 483, Blatchford, J.
1874. Littlefield *vs.* Perry, 21 Wallace, 222.
1875. Magic Ruffle Company *vs.* Elm City Company, 13 Blatch., 157, Blatchford, J.

In the first case of Brooks *vs.* Stolly, the grounds upon which the Court will take jurisdiction are fully set out.

McLEAN, J. * * * * * * *

"It is suggested that, as the whole controversy in the "case arises under the contract of license, the parties to "which being citizens of this State, the Federal Court "cannot take jurisdiction. This objection would be "unanswerable if no right were involved in the contro- "versy except what arises out of the contract: as, for "instance, the Circuit Court could take no jurisdiction "under the contract of an action merely to recover the "sums agreed to be paid by the defendant; but, in "the present aspect of the case, it is not limited to the "contract. The complainants set up their rights under "the patent, and allege that the defendant is infringing "that right; that the license affords no justification "whatever to the defendant. The right, then, of the "complainants to an injunction is not founded by them "on the contract, but on the assignment of the patent. "If the object of the bill were merely to enforce a specific "execution of the contract, the Circuit Court of the "United States could exercise no jurisdiction in the "case. * * * * * * *
"In the case under consideration, the complainants have "licensed the defendant to use the patented right on "certain conditions. If the use go beyond these con- "ditions there is an infringement, which must stand "upon the general ground, unaffected by the contract; "and as to such an use, the injunction should be abso- "lute. On this ground the jurisdiction in this case is "sustainable; and, having jurisdiction, the Court may "decide other matters between the parties, which, of

"themselves, might not afford ground for the original "exercise of jurisdiction. * * * * *

Brooks *vs.* Stolley, 3 McLean, pages 525 and 529; and in Bloomer *vs.* Gilpin, it is said by Judge Levitt that

"It is clearly no ground of jurisdiction, under the "patent law, that the contract between the parties "relates to a patent-right. But if an infringement is "proved, jurisdiction is conferred; and, having power "to protect the right of a party under a patent, the "Court will take cognizance of other matters as inci- "dental to the infringement. This is the doctrine "which has been long recognized by the Federal Courts, "and was distinctly held by Judge McLean, in the case "of Brooks & Morris *vs.* Stolley, 3 McLean, 523."

Bloomer *vs.* Gilpin, 4 Fish, 54.

These views were recognized and followed in the cases of

Woodworth *vs.* Weld.

Wilson *vs.* Sherman.

Woodworth *vs.* Cook.

Day *vs.* Hartshorne.

Goodyear *vs.* Rubber Co.

Magic Ruffle Co. *vs.* Elm City Co.

and in the late case of Littlefield *vs.* Perry, where the Chief Justice says:

"The act of Congress provides "that all actions, suits, "controversies, and cases, arising under any law of the "United States, granting and confirming to inventors "the exclusive right to their invention or discoveries "shall be originally cognizable, as well in equity as at "law, in the Circuit Courts," &c. *An action which raises "a question of infringement, is an action arising "under the "law," and one who has the right to sue for the infringement "may sue in the Circuit Court. Such a suit may involve the "construction of a contract as well as the patent, but that will "not oust the court of its jurisdiction. If the patent is involved "it carries with it the whole case.*"

* * * * * * * * *"

Littlefield *vs.* Perry, 21 Wallace, 222.

These cases are in perfect harmony with Wilson *vs.* Sandford, where Taney, C. J., says:

"The object of the bill was to set aside a contract "made by the Appellant with the Appellees,

* * * * * * * * *

"and also to obtain an injunction against the future use "of the machine, upon the ground that it was an in- "fringement of his patent rights.

"The Appellees demurred to the bill, and at the final "hearing the demurrer was sustained, and the bill dis- "missed. And the case is brought here by an appeal "from that decree.

* * * * * * * * *

"Now the dispute in this case does not arise under "any act of Congress; nor does the decision depend "upon the construction of any law in relation to patents. "It arises out of the contract stated in the bill; and "there is no act of Congress providing for or regulating "contracts of this kind. The rights of the parties "depend altogether upon common law and equity prin- "ciples. The object of the bill is to have this contract "set aside and declared to be forfeited; and the prayer "is, "that the Appellants reinvestiture of title to the "license granted to the Appellees, by reason of the for- "feiture of the contract, may be sanctioned by the "Court," and for an injunction. But the injunction he "asks for is to be the consequence of the decree of the "Court sanctioning the forfeiture. *He alleges no ground "for an injunction unless the contract is set aside.* And if "the case made in the bill was a fit one for relief in "equity, it is very clear that whether the contract ought "to be declared forfeited or not, in a Court of chancery, "depended altogether upon the rules and principles of "equity, and in no decree whatever upon any act of "Congress.

* * * * * * * * * *

"This appeal, therefore, must be dismissed for want "of jurisdiction."

Wilson *vs.* Sandford, *et. al.*, 10 How., 101, 102.

The other cases cited in Appellant's argument as

adverse to the jurisdiction of the Circuit Court, were as may be seen from the citation given there decided upon essentially the same grounds.

The general understanding of the Courts is that Wilson *vs.* Sandford is an authority for this point and no other, to wit: that where a suit is between citizens of the same State, the United States Circuit Court has not jurisdiction either to enforce a contract or rescind it. Judge Blatchford, in the case of Messerole *vs.* Union Paper Collar Company (*supra*), in 1869, expresses the general understanding:

"It is well settled that such a subject-matter does "not confer on this Court jurisdiction of a suit. "(Wilson *vs.* Sanford, 10 How., 99; Goodyear *vs.* The "Union India Rubber Company, 4 Blatch., 63.) "Whether the suit be one by a licensor, to enforce the "covenants contained in a license granted under a "patent, *as in the cases just cited*, or be like the present "suit, one by the licensee to destroy and annul the "license and its covenants, it is equally impossible "to find in the subject-matter any basis for the juris-"diction of this Court."

In Hartshorn *vs.* Day, (19 How., 222,) the case of Brooks *vs.* Stolley is cited in the opinion of the Supreme Court and distinguished without derogatory comment. In all reported cases where it is in point, Brooks *vs.* Stolley is cited approvingly and built upon.

The rule then upon which all these cases may be harmonized is so plain that it cannot be mistaken, and it is one by which the State Courts as well as those of the United States have uniformly governed themselves, viz: That where the main issue in the suit relates to a contract between the parties, the Circuit Court has no jurisdiction (though the subject-matter of the contract may be a patent right), but that where a question of contract arises incidentally in a suit for infringement, the Court is not ousted of its jurisdiction, but may pass upon such collateral issue.

But we may assume in this case, that had the existence of a license been proved, the Court could not have inquired whether it had been forfeited or not by reason of the non-compliance of Appellants with its terms, but it will scarcely be seriously urged that it has not even power to determine its jurisdiction by ascertaining whether there was any contract of license in the case.

To this extent (appellants having admitted the validity of the patent and their user), the question is simply infringement or no infringement, for, pending a license, there can be no infringement, and so the alternative presented to the court in this cause was simply either to enter a decree for appellee, or to dismiss the bill for want of jurisdiction.

Appellants' argument as to the jurisdiction of the Circuit Court, is founded on the assumption that the contention in that court was on the terms of the license under which appellants were to work the sand blast; this is unwarranted by anything which appears in the record. Appellants in their proof relied entirely upon the papers Exhibits "B and C," Record page 56, as being their license.

HARTELL. Record, page 24. Q. 36.

"A. Yes, sir. On October 30, 1873, the promised paper arrived—*a written license.* * * * (*Schedule and letter produced, marked Exhibit 'B,' W. C. S.*)

Q. 39. A. On November 7, we received another letter from him enclosing blank diaries for our foreman to keep the amount of royalties in, and blank returns for us to fill up under their license. * * * (Marked by the examiner, Exhibit 'C.')"

Page 26. Q. 52.

"A. * * * I positively told Mr. Blake that we would not sign any such new agreement; that we had already made an agreement with Mr. Tilghman, which arrangement was

that they were not going to charge for machines; *that we had already an agreement for royalties to be paid, and authority to use machines.* *
I told Mr. Blake etc., etc., *but under no circumstances would we sign a new agreement.* * *

Q. 55.

A. "We told him * * * *but we would not sign the new agreement under any circumstances.*"

Page 28.

"Q. 66. Did you or your partner, to your knowledge, ever agree to sign the license and agreement, marked Exhibit 'I. W. C. S,' or any one substantially the same, or any of those new agreements subsequently received by you from Gorham Blake, as above stated?

A. We were never asked to sign any agreement, *and never saw or heard of the new agreements before the one sent us March* 4, 1874, and we never agreed to sign any agreement."

Page 31.

"+Q. 88. By your said agreement were you bound to accept the rates of royalty sent you by Mr. Blake, whatever they might be?

A. No, sir; positively no. *We were bound to accept the schedule of royalty sent us on November* 1 *and October* 30, 1873, *and not what he might send us afterwards*, etc., etc."

Page 36.

"+Q. 139. *You have stated frequently in your testimony that the 'necessary papers' or license was to be sent on to you by Mr. Blake; did he send them; if so, when and what are they?*

A. *He sent them—the first on October* 30, 1873; *the royalties or printed copies of them on November* 1, 1873, *and November* 7, he sent us diaries or books for the foreman to keep the royalties in, also printed blank forms for us to fill up, the bottoms printed, 'under your license,' etc., etc.

+Q. 140. *Which of these papers did you consider your license from complainants?*

A. *We considered the whole of them Exhibits 'B and C' of defendants.*"

Page 38.

"+Q. 158. *You have always been under the impression that the papers annexed to the letter of November 7, 1873, and October 30, 1873 (Exhibits 'B and C') are what is called a license, have you?*

A. *Certainly.*

+Q. 159. *You have acted on that impression, have you, in giving your testimony and in your behavior towards the Messrs. Tilghman, how is that?*

A. *Yes, certainly.*

+Q. 160. If it should turn out those papers annexed to Exhibits 'B and C' were not a license, then you have been mistaken, is not that so?

A. *We cannot have been mistaken, because it was a license* promised by Mr. Tilghman, to be sent to us by Mr. Blake prior to our commencing to use the sand blast machine."

Page 40. Re-direct examination.

"Q. 182. Did you regard the letters and papers of October 30, and November 1 and 7, 1873, Exhibits 'B and C,' as the authority from Mr. Blake, procured by Mr. Tilghman?

A. *We did*, etc., etc."

LETCHWORTH. Record, page 45.

"Q. 236. *Did the papers promised also come from Mr. Blake?*

A. *They did, soon after the machines were sent us. (Exhibits 'B and C' shown witness.)*

Q. 237. *State if these are the documents referred to?*

A. *They are.*"

TILGHMAN. Record, page 89.

"Q. 213. Did you, in company with Mr. Blake, have an interview with Mr. Hartell at his store

some time in April, 1874? If so, state what occurred.

A. * * * Mr. Hartell then replied that he would not sign it for a thousand dollars, and *that he had already from Mr. Blake as good a license as he needed*, etc., etc."

There is literally nothing in the record upon which to found the statement [appellant's brief, page 8,] that

> "When the license was presented for execution,
> "the sole question (and, indeed, the only dispute)
> "was as to the terms of the license, and not at all
> "as to the obligation to accept a proper license,
> "which indeed the defendants are and always
> "have been willing to do."

Appellants have elected to stand upon the papers (Exhibits B. and C) as their license to use the process, and if it shall appear that they are not a license, then the plea of an existing contract must fall, and with it all questions of the jurisdiction of the Court.

It is not pretended by appellants that their so-called license was in any way affected by their paying for the machines.

Hartell Record, p. 37.

> "+Q. 148. Referring to your 53d answer, do you mean that on the 4th of April, 1874, when you paid the bill for the machines, a new and different arrangement from that previously existing was made between you and complainant?
>
> A. Not in reference to the royalties and *license*, certainly not; but only to our owning the machines in place of them."

So that if Exhibits B. and C. are shown not to be a license, appellant's plea of a direct contract must fall, and their whole reliance be placed upon the afterthought of an implied contract arising from their purchase of machinery.

II.

APPELLANTS WERE TO WORK THE PROCESS UNDER A WRITTEN OR PRINTED LICENSE.

It is agreed by both parties that the transactions between them were premised by an agreement, according to which appellants were to receive and accept a license to use the process at the time when the machines should be put in operation; but as to the date of this agreement, and the specific terms agreed upon, they are hopelessly at variance.

THE AGREEMENT ACCORDING TO THE APPELLEE.

Mr. R. A. Tilghman, who was acting as agent for the patentee, testifies (Record, p. 85) that on the 26th of August, 1873, Mr. Letchworth (between whom and himself there had previously been many conversations as to the sand-blast) informed him that his firm (Hartell and Letchworth) had decided to apply for a license, and wanted to know the terms upon which it would be granted. Tilghman says:

> "Q. 197. A. * * * *
> I told him that as to the rates of royalty I could not give him the precise figures, but referred him to our agent, Mr. Gorham Blake, of Boston, for them, and also for the form of license which we issued to licensees, which Mr. Blake had on hand, printed; I had previously mentioned to him what I supposed to be the rates of royalty, stating at that time, however, that I could not trust my memory for the details; we then conversed on the subject of the license; *I told him that*, besides the conditions which I believe are common in such documents, as to the means of verifying the correctness of accounts of work done, *the most peculiar feature of the license was that we retained in it the power of altering the license rates fixed on the various articles once every year, giving six months' notice before such change would come into effect:* he re-

plied that such a power as that would be totally inadmissible, as they would not be able to make contracts ahead for the delivery of goods, not knowing what license rates they would have to pay; *I informed him that that was the only condition on which we issued licenses*, and that I did not see that it was any more an element of uncertainty in future contracts than the price they might be obliged to pay for labor or for the glass itself, and asked him whether his laborers or glass manufacturers ever gave him contracts what they were going to charge him six months ahead: *Mr. Letchworth* said they had not done so, and, after some time, *asked whether these terms were in force equally from other manufacturers in the same business, and inquired who were working under such licenses; I informed him that the Hemmingray Glass Company, of Cincinnati, had machines for working both globes and flat glass, and that Page, Harding & Co., of Boston, were working a flat glass machine;* that a manufacturer named Nichols, in New York or Brooklyn, had a different and less favorable license granted to him a considerable time previous, when we had not the entire control of the sand-blast process; that I believed Mr. Nichols had not yet put any globes into the market and had not yet paid any royalty; *Mr. Letchworth*, after renewing his inquiry as to whether there was any "ground-floor" arrangement for more favorable terms, *said that he could work—all that he wanted was a fair show with other manufacturers in the same line of business;* I then suggested that he should, before making any positive arrangement, visit our works in New York, and then see Mr. Blake in Boston, who would supply him with a copy of our terms of license and official schedule of the rates of royalty, and that Mr. Blake could take him into the works of our licensee in Boston—Page, Harding & Co.; I furnished him with a card of introduction to Mr. Coleman, the manager of our works in

New York, but told him that he would need no letter of introduction to Mr. Blake, other than his name, as I had already written and informed Mr. Blake that they were thinking of taking a license—by 'they' I meant Hartell & Letchworth; we parted with the understanding that he would visit our works in New York, and afterwards go on to Boston to see Blake & Page, Harding & Co.'s works, &c., &c."

Page 87.

"Q. 199. State when was your next interview with Mr. Letchworth, and what passed between you?

A. It was upon August 29th, in the railroad car; he told me that he had met Mr. Blake at Mr. Nichols' Factory, in New York or Brooklyn, I forget which it was, and had been over our own works in Twenty-eighth street, New York; he mentioned that he had had to hunt up Mr. Coleman at his hotel, and gone with him to the works, making some remarks as to his not keeping very early hours for a man with a factory in charge; he mentioned spending some considerable time at the works in Twenty-eighth street, and intimated that Mr. Coleman did not seem very anxious to communicate everything to him; he spoke of it having been so fortunate that he should encounter Mr. Blake at Nichols' factory, as it had saved him the trouble of a journey to Boston; *I understood from him that he had settled everything satisfactorily with Mr. Blake, and that his firm had now decided to go on and work under our license and have the machinery put up as soon as possible;* as before stated, I am unable to specify how much of our conversation on the subject of machinery had been commenced in the interview of the 26th of August.

Q. 200. State what passed between you and Mr. Letchworth on the subject of the machinery to

work the sand-blast at either or both these interviews?

A. Mr. Letchworth speaking constantly of our patented machine, I informed him that we had no patent for machinery whatever; that our patent was for a process, and that I believed any one had a right to construct the machines used for it without hindrance from us, unless he attempted to put it into operation for sand-blast work; *that we would allow them to make their entire machinery themselves, if they preferred it, and I would furnish them with working drawings to do so, but that there were certain parts of the apparatus that differed so much from any apparatus in use for other purposes that we had gotten a firm in Boston to make several sets of such parts, which would be supplied to any licensee at cost price; that we would also furnish a machinist who could superintend the erection and starting of the said machinery on his expenses and wages being repaid to us;* Mr. Letchworth said they would prefer to get the entire machinery from us, but I declined to furnish anything more than the special and difficult parts above mentioned; *he then asked me to get Mr. Blake to push on the preparation of this machinery, and he received from me the address of the manufacturers of the blowing apparatus, which he said he would order at once,* as I warned him that we had had great annoyance and delay, caused by the slowness with which previous orders for blowers had been filled."

Page 88.

"Q. 202. Was anything said at the interview of the 26th or 29th of August in reference to your putting in machinery in satisfactory running order; if so, what?

A. It was mentioned on the 29th, and, I think, on the 26th also, that we would put the machinery in running order before the execution of the license.

Q. 203. Was anything said as to when the machinery furnished by you was to be paid for by them?

A. I mentioned that all our expenses, both for machinery furnished and for the workman sent on to erect it, were to be repaid us at the same time that the license was to be executed, which was on the machinery being in satisfactory running order."

"Q. 207. What did you do, if anything, in consequence of your interview of the 29th of August?

A. I ordered Mr. Blake to start the preparation of machinery at once, and push it on to completion as rapidly as he could."

Page 89.

"Q. 210. Was the arrangement made between Mr. Letchworth and yourself, on the 29th of August, ever afterwards altered by you, or with your knowledge and consent?

[Question objected to, witness not having mentioned any arrangement as having been made between himself and Mr. Letchworth on the occasion referred to.]

A. The arrangement which I made with Mr. Letchworth on the 29th of August was never altered in any way by me since that date."

This is a clear account of a very simple transaction. Letchworth told Tilghman, on the 26th, that his firm desired a license. Mr. Tilghman informed him of its salient features and the rather uncommon power of changing the royalties reserved to the licensor was discussed by them. Mr. Letchworth then went off to New York, to see the operation of the process, and met Blake, the general agent, there, by chance (he having expected to go to Boston to see him). On his return he met Tilghman again, August 29th, and then concluded the agreement discussed on the 26th. Tilghman then immediately sent orders to Blake to prepare the machines for them.

Mr. Tilghman is corroborated in this statement by Blake, who says, (Record p. 67).

"Q. 2. A. I did see Mr. Letchworth, about the 28th or 29th of August, 1873, at Mr. Nichols' factory; he asked me 'on what terms can we use the sand-blast.' I asked him, in reply to that 'what arrangement have you made with Mr. Tilghman, and what did he say?' Mr. Letchworth replied, 'I have made no arrangement with him; he referred me to you, as the business agent, to attend to the business matters.' He asked, 'what are the cost of the machines and the terms of royalty and license?' I told him, 'the cost of the machines, the parts which we would furnish, would be about $600, the license would be the same as signed by other parties now using the machines and process.' He asked, 'what other parties were using it?' I told him, 'the Hemmingray Company, of Cincinnati, and Page, Harding & Company, of Boston.' *I told him the license would be the same as signed by those parties. He said it was perfectly satisfactory if he had the same chance or terms as the others*, he did not want any one to have any better terms than he had. There was some other immaterial conversation, but I don't remember anything important.

Now examine

THE APPELLANTS VERSION.

Hartell says, (Record p. 22), that Appellants arranged with R. A. Tilghman to operate the process in the early part of the *fall of* 1873, this arrangement was made between Tilghman, himself and Letchworth. (Qs. 3, 4, 7 and 8).

Q. 9. A. *"They were to supply us with three machines * * * and put them in running order, * we were to pay a scale of royalties, which would be supplied to us by Mr. Blake."

He says further, (Qs. 13–17) that *subsequently* to this agreement Letchworth saw Blake, who endorsed all that Tilghman had said and promised to send on the

machines. Further on in answer to (Q. 30), he says, that at the time of this agreement,

> "A. Mr. Tilghman stated, they would not sell machines—the Tilghman Sand-blast Company, I mean. This was in answer to a question I asked him in reference to any necessary papers to be drawn up—as to whether it was necessary for any papers to be drawn up. He said no; Mr. Blake would send us on all necessary papers of royalties, blank returns, diaries for the men to keep, &c. I then asked him the question, in case the parties were not punctual or truthful in sending on the royalties, how they acted? He distinctly said, they never sold machines; but in cases like that, held the power of removing them."

Now this interview so far as it had any existence must be the one referred to by Tilghman, (Record p. 88. Q. 209), where he states that after the agreement was concluded,

> "There was an interview with both the defendants at their store, according to my impression, some days later than the last mentioned conversation, as to the blowers. I do not remember anything of special importance occurring at that interview; the subject of their future workings, the process was talked over, and I think the same suggestion, as to their license being an exclusive one, was made by Mr. Hartell, and received from me the same reply as given to Mr. Letchworth. I rather think that that was the last time I saw Mr. Letchworth to speak to before the commencement of the present suit."

And some such conversation may have taken place as to the status of the parties towards each other during the time in which the Appellee was engaged in fulfilling his agreement, and before he was entitled to call upon Appellants to become his licensees, (that is before the machinery was in satisfactory order).

A. The understanding was that they were to be put in working order by the man they sent on, whose expenses we had to pay.

He is next asked. (R. p. 33.)

+Q. 109. Please state fully and in detail all that occurred in the interview between R. A. Tilghman and yourself and partner, held at your office in September, 1873, as referred to in your 77th and 78th answers?

A. *There had been a great many previous conversations to this with Mr. Letchworth and Mr. Tilghman*, but on this final arrangement when we told Mr. Tilghman that he might send the machines on, we had a conversation in reference to the royalties on a few of the principal ones as far as we were concerned. We had also had a conversation in reference to machines, wishing to know what the cost would be; he then said that they never sold the machines.

+Q. 113. You have said in your 77th and 78th answers that the final and definite contract between your firm and the complainant was made verbally between R. A. Tilghman and yourselves at that interview in September. State fully and in detail all the conversation on that subject at that time?

A. I can't remember more than what I have said.

+Q. 114. Without reference to what you have said before, please repeat here in detail what passed between you and your partner and Mr. Tilghman at that *interview in September, and confine your answer to that interview entirely.* The witness is requested to read the 77th and 78th answers, and confine his attention to the interview there mentioned, and not mention what transpired at other interviews than that one.

A. *I am not positive whether this interview took place in September or early in October;* it has been so long since, and having such confidence in Mr.

Tilghman, I have kept no memorandum, but have the points only in my memory. The machines were to be sent on as soon as possible and put in working order, and were to be considered as their property, to be taken away by them if we did not honestly pay our royalties; the authority or license, etc., was to be sent on by Mr. Blake, which was to be considered our agreement and contract, and binding on both sides.

The last time he expressed an uncertainty as to the time of this interview, it was whether it took place the first of September or in August (Q. 78., R., p. 29), and now he says it may have been "early in October."

+Q. 115. Have you stated all the points then agreed upon?

A. Yes sir.

+Q. 116. All the points not mentioned in that conversation were to be settled finally by the papers which were to be sent on. Is that so?

A. The points were already settled in our conversation. We did not know of any other points. All the points were understood except the authority to run the machines, which was to be sent on by Mr. Blake previous to our commencing to use the machines.

After stating what royalties were named to them at this interview, he was again asked (R. p. 34):

+Q. 121. Have you now stated all that you can recollect of the details of the final and definite contract made in September, as stated in your 77th and 78th answers?

A. All I can remember of that conversation.

+Q. 122. Was it then agreed that a written license should be sent on to you by Mr. Blake?

A. It was then agreed that Mr. Blake was to send us on authority to work the process, with all the necessary papers, before we commenced operations with the sand-blast machines.

(P. 36.) 134 A. * * * *Mr. Tilghman told us at the time of the agreement*, that Mr. Blake would send us on authority and a license, and he never requested us to sign it; as he told us in our verbal agreement distinctly and positively, that we had nothing to sign; their owning the machine made it unnecessary.

+Q. 135. State at what time and place Mr. Tilghman told you distinctly and positively you had nothing to sign?

A. In our office; either at the time of the definite arragement, or the next conversation we had afterwards; I do not know which.

+Q. 136. Are you willing to swear, that this formed part of the final and definite arrangement?

A. I am swearing—am I not? Do you want me to swear again? I am willing to positively swear, that *it was either at the final arrangement or at the next interview afterwards.*

+Q. 137. Look at your answers, purporting to contain all the material circumstances and conversations at the interview in which the final and definite arrangement was made, and see if you then state that Mr. Tilghman then told you that you had nothing to sign?

A. No—as I did not then remember it.

+Q. 138. Do you remember it now?

A. I distinctly remember him saying so; but *whether at that interview or afterwards*, I cannot positively say.

Here we have a new feature injected into the agreement, which, after having moved it from September first into August, and then into October, he now divides in two, and by introducing "the next interview afterwards;" and to this agreement after the "final" agreement he now transfers its main feature, viz., the agreement to license his firm (Rec. p. 38).

+Q. 161. Now I want to know if you are certain that a license was to be sent to you by Mr. Tilghman, through Mr. Blake?

A. The license, or proper authority, was to be sent to us by Mr. Blake, before we commenced the sand-blast process.

+Q. 162. Are you certain, that it was understood between you and Mr. Tilghman, that a license or proper legal authority was to be sent to you, before you commenced to work the sand-blast process?

A. I am positively certain, that a license or necessary authority was promised to be sent to us, through Mr. Blake, before we commenced using the sand-blast.

+Q. 163. Did you understand this was to be in writing—this license or authority?

A. I certainly understood it would be in writing, and some in printed forms to be filled up.

+Q. 164. Was this understanding between you and Mr. Tilghman, had at the time you refer to as the making of the agreement, in September, 1873—about that time?

A. *It was either that day, or a day or two subsequent to the making of the agreement*, that this understanding about sending a license was had between he and I. *I won't be positive whether the agreement about sending a license was made at the time the other agreement was made, or not.*

In his re-direct examination, however, he abandons his "next interview afterwards" entirely, and in his answer to the first question restores all he had taken from the "final agreement" and more (R. p. 40).

Q. 181. When you made the final and definite contract with Mr. Tilghman in September, 1873, as already stated, or about that time, did you understand that Mr. Blake was to send you anything in the nature of an agreement to be signed by you?

A. Positively no. He told us distinctly at the time we made the final agreement that it was not necessary for us to sign anything, that all the

necessary papers would be sent on by Mr. Blake, before we commenced operations.

And in his 191st answer it appears that the license was to be co-extensive with the term of the patent.

In answer to +Qs. 198 and 200 we have a revised edition of the agreement, with still another new feature (Rec. p. 41).

+Q. 198. State fully and in detail all that was said at that time about the right to remove the machines?

A. It was agreed and understood, between my partner, Mr. John Letchworth, and myself and Mr. Richard Tilghman, that the Sand-Blast Company were to send us on three machines, they then giving us the authority or license to work them, and we were to work them under the sand-blast process, we paying a definite royalty, to be sent on by Mr. Blake, with all the necessary papers, before we commenced operations; and that if we paid the royalties faithfully, we were to have the use of the machines and the process as long as we paid; and if we did not pay the royalties fairly, they had the power to come and take away their machines.

A. 200 It was understood that Mr. Blake would send us the books or diaries to be placed alongside of our foreman, the royalties to be paid according to those books and schedule rates agreed upon. He was to have the privilege of taking our oaths and looking over our books. I don't know whether he demanded it or not. I mean the oath of our foreman only.

+Q. 201. Did Mr. Tilghman then agree to be satisfied with the oath of your foreman as to the correctness of your returns?

A. He did.

+Q. 202. Was this part of the final and definite agreement made in September?

A. Yes, sir; in September, or the early part of October.

+Q. 206. Have you ever before stated that Mr. Blake was to send on books?

A. I think I have; if not, *I meant them when I said*, "*etc.*"

Mr. Letchworth was next examined, and testifies (Rec. p. 43) that the agreement was made between his partner Hartell, himself, and Mr. Tilghman, in the fall of '73, at their office. He states, Q. 218, that

> "Mr. Richard A. Tilghman, on behalf of the patentee, agreed with us at that interview, that we should have the sand blast machine furnished us, and a fixed schedule of royalties furnished us; they retaining ownership in the machine. Mr. Richard Tilghman at this interview repeatedly stating that they never sold the machine; but as long as the royalties were promptly paid, and the parties evidenced energy in their management, they would retain them—I mean that we who run them—or those using the machines, should retain them."

Also that they were to retain the machines until the expiration of the patent. [Q. 225, page 44.] Tilghman said he would instruct Blake to send on with the machines "blank forms and diaries," which would be all required to make this contract complete.

> Q. 228. Was anything then said about a written or printed schedule of royalties?
>
> A. They were to come on: they were part of the agreement. They were to be furnished with the other papers and documents; such as Mr. Tilghman had agreed should be furnished by Gorham Blake.

Mr. Letchworth says (Record, page 46) that prior to the agreement, he went to New York to see Blake, and related to him the particulars of the agreement with Tilghman. Now Blake says of this interview that he spoke of the reserved right of raising the royalties [Record page 78].

+Q. 288. I understand that it was your agreement with Mr. Tilghman, that the papers to be furnished by Mr. Blake, were to contain the particulars of your definite and final license to work the sand blast—is that so?

A. Mr. Tilghman was to advise Mr. Blake in regard to the arrangements he had completed with us; they were to be put in writing by Mr. Blake and mailed to us before we went to work with the machines.

[Record page 50.] Letchworth says in answer to Q. 302.

A. We had the assurance of Richard A. Tilghman when the contract was made, that when any other agreements should be made with other parties furnished with these machines, they should pay the same schedule of royalties which we were furnished with.

+Q. 303. Was this a part of your said agreement with said Tilghman?

A. It was expressly stated at the time, and understood by us as a formal part of our agreement with him.

This is something new. Mr. Letchworth's picture is more perfect than that of Hartell, but still need a few touches when a strong light is let in upon it.

And now to make assurance doubly sure, Mr. Letchworth commits an imprudence.

Record page 51.

+Q. 311. When and where were these essential points settled between you and Mr. Tilghman?

A. They were discussed at various times in the cars, and finally in our office, Richard A. Tilghman, my partner, and myself being present. This interview was after my visit to New York.

+Q. 312. Had the question of the right to change the royalties once in a year been discussed between you and Mr. Tilghman *in those interviews in the cars?*

A. *It had not, except on our part or by our stating, that any change of royalties would ruin us.*

+Q. 313. *Was this conversation in the cars?*

A. *In the cars and in our office. Mr. Richard A. Tilghman always agreed with us in these interviews, that it would not be proper to make any change. That was the most essential point with us in accepting their proposition.*

+Q. 314. *By whom was this idea of the right to change the royalties suggested in your discussions in the cars?*

A. *By myself.*

+Q. 315. *What did Mr. Tilghman say to it?*

A. *Always acquiesced in my view of it.*

At this time Mr. Tilghman had, after consultation with counsel in Boston and Philadelphia, prepared a form of license embracing this unusual feature of a power to raise the royalties. [Record, page 82.] [Blake Q. 162 and 165.] This license was printed in July, 1873, and at the time of the conversations above sworn to, two firms had agreed to work under them. [Record page 67. Blake, Q. 6.] And yet this man swears that such a provision was never spoken of except by themselves, that it was "the most essential" point with them in this agreement, and that Mr. Tilghman only spoke of it to agree with them that such a provision was not to be even thought of. His partner Hartell has not the faintest recollection of this "most essential point" in their agreement, and says (Record page 25, A. 49) that March 4, 1874, was the *first time they ever heard* of the license then sent them.

It is this thing of shreds and patches; this collection of afterthoughts and glaring improbabilities, with its variable date and polyps-like power of dividing itself, which the appellants dignify with the name of "our final agreement."

In one particular, however, there is no disagreement. Appellants are as positive as Tilghman himself, that they were to receive a license from Blake at the time when the machines should be in satisfactory order.

III.

THE SCHEDULE AND FORMS, EXHIBITS 'B AND C' CLAIMED BY APPELLANTS TO BE THEIR LICENSE, CANNOT *per se* BE DEEMED SUCH.

These papers are printed on pages 56–59 of the record, and consist Exhibit 'B' of a letter.

OFFICE OF TILGHMAN'S SAND BLAST.

Gorham Blake, Agent, No. 31 *State Street.*

NEW YORK, BOSTON, October 30, 1873.

Messrs. Hartell & Letchworth.

Gentlemen:—I below name to you our Schedule of Royalties, and will send you printed list and returns as soon as I return to Boston.

Here follows a number of the more important royalties, and Gorham Blake's signature. Enclosed in this letter was a written schedule of royalties. Exhibit 'C' is another letter.

OFFICE OF TILGHMAN'S SAND BLAST.

Gorham Blake, Agent, No. 31 *State Street.*

Room 5, Traveller Building.

BOSTON, November 7, 1873.

Messrs. Hartell & Letchworth.

Gentlemen:—I send you to-day Schedule of Royalties, blanks to be filled up and return to me monthly with check, and Sand Blast diary for convenience to enter work done each day; we hang these with pencil by the side of each machine for workmen to use. Hoping your machines are running satisfactory and to get large returns, I am,

Yours, respectfully,

GORHAM BLAKE, Agent.

The schedule here was printed, and at the foot o the blank was the following form to be filled up by the party making returns:

Gorham Blake, Agent,

American Sand Blast Company, Boston.

Gentlemen:

Above is a correct account of the quantity of glass treated by us during the month of

187 under your license to use your process, patented by B. C. Tilghman, October 18, 1870.

Yours, &c.,

187

It needs but a glance at these papers to tell that they are not a license but simply what they purport to be, two very short letters enclosing schedules of royalty and a quantity of blank returns to be filled up by one working under a license: there is not a word in them which can be tortured into an authorization to use the process.

IV.

IT DOES NOT APPEAR THAT THE PARTIES MINDS EVER MET UPON EXS. B. & C. AS BEING A LICENSE.

The improbability of Appellants' version of the agreement under which they were to become licensees has already been discussed, and it only remains to examine what took place after this agreement, first recalling however Hartell's statement (Rec. p. 24, Q. 33,) that Mr. Tilghman *did not* specify what papers were to be sent by Blake, but merely said that he would "send all the requisite authority and papers before we commenced operations." And also their other point of agreement with Tilghman viz that Appellee was to put the machines in order for them, and that the license was to be sent when they were in operation. Rec. p. 22, 31, they also (Rec. p. 31, Q. 93)

were to pay the expenses of the man sent to erect the machines. Now Blake, (R. p. 67, Q. 5.) testifies that while the machines were being executed,

> Mr. Hartell asked me on what terms the sand-blast could be used. I told him, on the same terms that others were using it; that there was a license and agreement to be signed like others that were using it, and a list of royalties that I would send him. *He spoke of* the prices of royalties which I named as near as I could remember, and *the terms of license, the increase, after six months' notice, of the royalties*, if we, the Sand-Blast Co. so elected. There was some argument about that, *but he seemed satisfied*, as other parties using the sand-blast had signed the same license. * *
>
> Q. 7. Did you subsequently to this interview, and if so, how soon after, send Mr. Hartell a written memorandum of the rates of royalty?
>
> A. I think I sent him a list of schedule of royalties in letter form from New York—the next day, I think.
>
> (Defendants' Exhibit "B" shown witness, and identified as his hand writing.)

This is the letter and schedule of October 30th, and November 1st, those of November 7th, followed as therein promised. Of these papers Hartell, (R. p. 36), says:

> +Q. 140. Which of these papers did you consider your license from complainant?
>
> A. We considered the whole of them—Exhibits "B" and "C" of defendants.
>
> +Q. 141. *Did you notify complainant's agents at that time of your acceptance of said alleged license?*
>
> A. No, sir; *I did not think it necessary.*
>
> +Q. 142. *Have you ever done so?*
>
> A. *No, sir; never thought it necessary.*

It appears then that Blake had no idea that he was sending them a license, and that they never notified Appellant that they considered these papers as such.

On November 12, Blake sent them a bill for the cost of the machinery and labor supplied by him, (R. p. 59, Ex. "D.) Of this Mr. Letchworth says, (R. p. 46, Q. 261.)

> A. In view of our understanding and agreement with Mr. Tilghman, we supposed this bill to be a form they had chosen to fix the values in case of loss by fire or otherwise. We therefore made no reply.

This in spite of the fact that $298 of it was for labor which they say they were to repay.

On November 15th, they wrote to Blake, informing him that the flat glass machine was defective, (R. p. 96, Ex. 1).

In his answer to this (R. p. 60, Ex. E.) Blake again mentiones the bill sent so that the delusion under which they labored as to its being a "mere form," must have been dispelled. In this letter Blake indicates that he knew that one of the machines did not work properly. Tilghman also, (Rec. p. 89, Q. 212), says:

> A. The flat glass machine as left by the machinist who erected it did not cut the glass in a uniform manner over the whole breadth it was intended for, which prevented its doing as much work as it should do. *Expecting that this trouble would disappear by a little more use of the machine, and experience of those using it, it was allowed to run on until I was informed by Mr. Blake that the defendants had written to him complaining of its imperfections;* I directed him to send back the machinist who had erected it, and subsequently instructed him in the changes to make.

This explains why a license was not sent at this time, for Appellants were not to become licensees until the machinery was in satisfactory order. This machine was not finished until the last of February, 1874, and in the interim they worked the other

machines and paid royalty on the product according to the schedule sent them. This user was merely by sufferance and without consideration other than the royalties paid, and like all such licenses was revokable at pleasure.

During this time, while the repairs were going on, Blake had an interview with the Appellants, of which he says, (Rec. p. 68, Q. 13).

> "There was a general conversation with them, or one of them, at their store. Mr. Hartell expressed satisfaction with the running of the globe machine, also general satisfaction with the business, as it was started in globes. *I spoke of the license and agreement, and the bill for the part of the machinery that we supplied, he said that we will attend to that when the flat glass machine is in good running order;* there was some other conversation about general matters, but I don't remember anything important; *it seemed to be generally understood between us in all conversations we had previous to this, and at this time, that the bill for machinery was to be paid when my part was completed and the machines in good running order, and the license was to be signed at the time the machines were completed.*"

Accordingly on March 4th, 1874, he wrote to them enclosing another bill and duplicate forms of license, (Rec. p. 61, Ex. "I,") to this they made no reply. And Blake wrote again as follows, (Rec. p. 62, Ex. J.)

OFFICE OF TILGHMAN'S SAND BLAST.

Gorham Blake, General Agent, No. 93 Federal Street,

BOSTON, March 9th, 1874.

Messrs. Hartell & Letchworth.

Gentlemen: Your favor enclosing check for $50.34 was duly received, for royalties for February. I have received no reply to my previous letter, requesting remittance for amount our bill, and license and agreement.

Hoping you may find it convenient to answer soon, and that all is well,

I remain very truly, yours,

GORHAM BLAKE, Agent.

After this, Blake saw Hartell in Philadelphia, and was told by him that he had not seen the papers, as they were locked up in the desk of Letchworth, who was away, but promised to send money and signed licenses on his return. (Rec. p. 69, Q. 18.)

Accordingly, on March 25th he sent the following letter. (Rec. p. 63, Exhibit L.)

OFFICE OF TILGHMAN'S SAND BLAST.
Gorham Blake, General Agent, No. 93 Federal Street,
BOSTON, March 25th, 1874.

Messrs. Hartell & Letchworth.

Gentlemen: I herewith enclose you copy of schedule of royalties: also license and agreement, as signed by all licensees. Will you please inform me as soon as your Mr. Letchworth returns, and send remittance for amount our bill at earliest convenience, and very much oblige,

Yours, respectfully,

GORHAM BLAKE, Agent.

On April 3d, Blake saw both of Appellants, who then told him that they never expected to have to pay for the machines, and declined to sign the license. (Rec. p. 69.)

After a long conversation, Blake went to his hotel and wrote the following letter. (Rec. p. 64, Exhibit M.)

PHILADELPHIA, April 3d, 1874.

Messrs. Hartell & Letchworth.

Gentlemen: I have supplied you with a Flat Glass, Globe and Boring Sand Blast Machines to your order, which you have been running many months. The bills for same you have declined to pay. I have also sent you a license and agree-

ment, such as is signed by other licensees, and which we require you to sign, if you desire to use the sand-blast process.

I have called on you several times for a settlement and your signature to the license, which you also decline. I will wait upon you to-morrow morning at 9½ o'clock, at your store, for a settlement in full, and your signature to the license. If you decline such, you will please cease to use the sand-blast process and machines, and consider this a notification to do so.

Very respectfully,

GORHAM BLAKE.
General Agent T. Sand Blast.

Of the interview next day, he says. (Rec. p. 69, Q. 18.)

April 4th, the morning of April 4th, I called at Hartell & Letchworth's store, asked them if they had received my letter of the evening previous; they said they had; I asked, What is your decision? they said they wanted the matter settled up, and would pay me $500, the amount of the bill being $798. I agreed to split the difference, or make a discount of $149; they gave me a check for $649. *I then asked them to sign the license;* they objected, *saying* they wanted to consult Mr. Letchworth's brother, their lawyer, who was then away; I asked how long a time they needed to consult him; they said a day or two, *and would send the license by the next Saturday, to me at Boston;* I told him I would expect it, and left.

At this interview a little incident occurred which illustrates the spirit in which Appellants were dealing with Blake. (Hartell, Rec. p. 27, Q. 58.)

* * * "After this affair was settled, at my request *Mr: Blake endorsed our previous authority for royalties*, by inserting in our original agreement (in evidence as Exhibit B) the words '*Zinc, ten cents*

per foot,' which was not on it before—which words added being in purple ink, about the middle of the paper, headed Tilghman's Sand Blast; a memorandum of which I made at once in pencil on the margin of that paper, which is, 'Written by Mr. Blake, April 4th, after we paid machines. (Mem. T. R. H.)"

Mr. Blake was just as ignorant of having "endorsed their *authority*" as he was of having ever given them any, and had the fact been, as they pretend, that Blake then agreed that they should not sign the "new" agreement, but go on under the "old" one, they would never have dreamed of torturing his act into an "endorsement."

After his return to Boston, Blake again wrote to Appellants. (Rec. p. 65, Exhibit N.)

OFFICE OF TILGHMAN'S SAND BLAST,
Gorham Blake, General Agent, No. 93 Federal Street.
BOSTON, April 10th, 1874.

Messrs. Hartell & Letchworth, Philadelphia.

Gentlemen: Your favor enclosing check for $94.60 is received, it being amount for your account of royalty to April 1st, 1874. I shall expect you to send me the two copies of license and agreement, signed by yourselves, by Saturday, the 11th instant, one of which I will return to you with my signature attached.

Very respectfully, yours.

GORHAM BLAKE, Agent.

No notice was taken of this, and on the 23d of April, Blake and Tilghman called together at Appellants' store. Of this interview Mr. Tilghman says. (Rec. p. 89, Q. 213.)

We saw Mr. Hartell, and Mr. Blake then tendered to Mr. Hartell a printed form of license, to which he requested his signature; Mr. Hartell answered that he was busy and could not attend to it; Mr. Blake responded that he had come on

several times from Boston upon repeated promises of the execution of that paper, and expressed his determination that he would not be fooled with any longer about it, and that if it was not signed then and there he would notify him to desist from using the sand-blast, as having no authority to use it. Mr. Hartell then replied that he would not sign it for a thousand dollars, and that he had already from Mr. Blake as good a license as he needed; Mr. Blake then handed Mr. Hartell a written notice to cease using the sand-blast process; those are all the important features that I remember.

Further on (Rec. p. 96, + Q. 257) he says of this remark of Hartell's:

> "I remember, immediately after leaving the store, having a conference with Mr. Blake [objected to] as to what Mr. Hartell could be alluding to as 'a license.'"

To this account, supported and confirmed as it is by the letters sent Appellants during the time that those negotiations were going on, Appellants simply oppose their assertion, that they had always refused to pay for the machines, and refused to accept any license other than Exhibits B and C, and that Blake "endorsed" their said license by interlining the words,

"*Zinc, ten cents per foot*" in their schedule of royalties. There is not another word to show that appellee ever considered these papers as a license, and this, if it shows anything, shows (in view of the time when it was made) just the contrary.

And now a word as to the forms of license tendered appellants. It is true that the copies sent them on March 4th and 25th, 1874, were not exact fac-similies of licenses signed by the other licensees, but the variance was trifling, and they were, on the whole, more advantageous to the licensee than the others. In view of the fact that the contention was not on the terms of these papers, but on the nature of Exhibts B and C; it is un-

necessary to go into this question further than to call attention to the fact that Blake did offer them for signature a paper exactly like that signed by the others. (Rec., p. 75.)

V.

APPELLEES PATENT BEING FOR A PROCESS (NOT A MACHINE), THE SALE OF UNPATENTED DEVICES USED IN THE PROCESS DOES NOT CARRY ANY IMPLICATION OF A LICENSE.

Appellee was *tricked* into parting with his ownership in the machinery furnished by him to appellants.

When Blake had fulfilled his contract, *i. e.*, put the three machines in satisfactory order, which all parties agree was the condition precedent, before the execution of which appellee was not entitled to call upon appellants to become his licensees. Supra., pp. 17, 21 and 22. He sent appellants a bill for the expense incurred in doing so, and also a form of license to be signed by them (Ex. I); and in all his letters to, and conversations with them he insisted not only on payment but also on their signing the license. In his letter of April 3d (Ex. M.) he notifies them that if they do not comply with his said demands, in *both* particulars, they must cease the use of the sand blast; and when he called next day to learn their determination, he accepted payment for the machinery with the full understanding that the license was to be signed immediately. After Blake had receipted for the money appellants excused themselves from signing *then*, but promised to send the papers to him signed by the following Saturday, (Rec. p. 69). This statement of Blake is corroborated by his letter of April 10th (Ex. N), in which, after acknowledging the receipt of a check, he says:

> "I shall expect you to send me the two copies of license and agreements, signed by yourselves, by Saturday the 18th instant, &c., &c."

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"*Zinc, ten cents per foot*" in their schedule of royalties. There is not another word to show that appellee ever considered these papers as a license, and this, if it shows anything, shows (in view of the time when it was made) just the contrary.

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When Blake had fulfilled his contract, *i. e.*, put the three machines in satisfactory order, which all parties agree was the condition precedent, before the execution of which appellee was not entitled to call upon appellants to become his licensees. Supra., pp. 17, 21 and 22. He sent appellants a bill for the expense incurred in doing so, and also a form of license to be signed by them (Ex. I); and in all his letters to, and conversations with them he insisted not only on payment but also on their signing the license. In his letter of April 3d (Ex. M.) he notifies them that if they do not comply with his said demands, in *both* particulars, they must cease the use of the sand blast; and when he called next day to learn their determination, he accepted payment for the machinery with the full understanding that the license was to be signed immediately. After Blake had receipted for the money appellants excused themselves from signing *then*, but promised to send the papers to him signed by the following Saturday, (Rec. p. 69). This statement of Blake is corroborated by his letter of April 10th (Ex. N), in which, after acknowledging the receipt of a check, he says:

> "I shall expect you to send me the two copies of license and agreements, signed by yourselves, by Saturday the 18th instant, &c., &c."

But even were the account of this purchase given by Appellants true, *i. e.*, that the machinery was sold to them to be used under the conditions of a license, which, we have shown, never existed; they would still be without authority to use it. This patent is for a process and not a machine.

The distinction between process and machine is well drawn in Corning *vs.* Burden, 15 Howard 252, and in Burr *vs.* Duryee, 1 Wall, 531.

The sale of unpatented devices cannot authorize the use of a process.

The law will imply from the bare, naked sale of a patented machine by the patentee a license to his vendee to use it, but in this case it is not pretended that there was such a sale. Accepting as true, appellant's account of the transaction, we find that the machines were furnished in compliance with an agreement of license, with reservation of a fixed royalty and power of revocation under certain conditions, and Mr. Hartell says (Rec. p. 37, Q. 148), that they did not consider their agreement as to royalties and license changed by their paying for the machines, but that the only change was in their owning them instead of appellee; there is then no room for an implication, as the rights and powers of appellants were fixed by a definite contract.

If then the papers (Exs. B and C) are not *the license* under which these machines were to be operated; since the appellants have utterly refused to accept any other, there is no authority in them to work the process, and as the sale of machinery by their own admission made no change in their alleged agreement save as to the ownership of the wood and iron of which it was *made;* they are without any authority to use it.

See cases cited on pp. 4 and 5.

GEORGE HARDING,
Counsel for Appellee.

172.

In the Supreme Court of the United States.

Hartell & Letchworth, Appellants,
vs.
B. C. Tilghman, Appellee.

October Term, 1876.
No. 727.

APPELLANTS' SUPPLEMENTAL BRIEF.

Nothing in the appellee's brief is inconsistent with the appellants' view as to the jurisdiction.

The parties are citizens of the same State.

The appellee's entire case is based upon the breach of an agreement

This is admitted by him. Thus:—

He has been paid for his machines. (Record, page 65.)

He has been paid his royalties. (Record, page 60.)

"They, the appellants, operated the others (machines), paying the royalties upon the completed work, according to a schedule furnished them by Blake, and making out their returns on certain blank forms also provided by him." (Appellee's brief, page 2.)

He admits the working under a verbal contract.

We "concluded a *verbal agreement.*

"Pursuant to *this agreement,*" &c. (Appellee's brief, page 1.)

"It is agreed by both parties that the transactions between them were premised by *an agreement.*" (*Id.*, page 13.)

"Tilghman then concluded *the agreement.*" (*Id.*, page 17.)

He asserts a right to a written license *under his agreement*, containing what he admits to be "a rather uncommon power of changing royalties" (Appellee's Brief, page 17), which he again refers to as "This rather unusual feature of a power to raise the royalties." (*Id.*, page 29.)

And admitting the appellee's version of the agreement, the bill was filed three months before the royalties could have been raised.

Moreover, the true nature of the case clearly appeared by the appellee's fifth point.

In his brief, as originally filed and served upon counsel, point V. was thus stated: "There was an **EXPRESS AGREEMENT** as to the licensing of appellants, hence no inference is to be drawn from the appellee's having provided certain parts of the machinery of a license to use the same. *A fortiori* this is true, as appellee's patent is for a process and not a machine." (Appellee's original brief, pages 3 and 37.)

Upon reflection, the appellee has evidently seen that this doctrine, resting solely upon a contract, utterly subverts his argument as to the jurisdiction, and, to avoid this, he has within the last few hours reprinted point V. and the last two pages of his brief in their present shape.

Moreover, in the last two pages of this substituted brief, the appellee has ventured the assertion that he was *tricked* into parting with his machines. The expression is unusual, and was, it is hoped, unadvisedly made, for it is unnecessary to do more than refer to the testimony of their own witness, Blake.

"They [the defendants] gave me a check for $649. I THEN asked them to sign the license." (Record, page 69.)

Admitting, for the purposes of the argument, the whole of the appellee's case, viz.—that the patent was for a process, and not a machine—that the license was to be written, and not verbal—that it was to contain this "rather uncommon and unusual feature" of changing royalties—that there was a breach of this agreement—yet it is impossible to sustain the jurisdiction.

Federal courts can not be used to construe contracts between citizens of the same State, no matter what may be their subject-matter.

A broad principle of jurisprudence underlies this case. It depends upon the distinction between rights acquired by the voluntary or the involuntary acts of an owner.

Take, for example, the case of a patent.

Where the original user is not with the consent of the owner, then no right of property passes, and the party using is *prima facie* an infringer. Nor would a *bona fide* purchaser from such infringer have any higher rights than the infringer himself. For no higher right of property can pass than is in the vendor. The principle is of universal application, and applies to all species of property, both chattels and realty—both property stolen or lost. A single exception, founded upon motives of public policy, exists in favor of negotiable instruments.

In this class of cases (viz., user against the owner's consent, or, in other words, involuntary user), the Federal jurisdiction clearly attaches, for the patent itself is directly in issue, and the cardinal *prima facie* question is—

Did the defendant obtain possession of the invention and the means of using it *without the plaintiff's consent?*

This being the issue, it is clear that the plaintiff could not be turned out of court by the defendant's attempt to prove a pretended contract to use the invention, which contract is found against the defendant, for the question of contract would be incidental and subservient to the main question arising directly on the patent.

But where the defendant has originally received the right to use the invention by the VOLUNTARY act of the owner of the patent, then, clearly, upon a subsequent contention, the cardinal question does *not* arise directly on the patent, but upon *the construction of an agreement relating to it;* and the primary point is—

Upon what *terms* was the right to use the invention granted? And if found against the defendant, then, *upon the interpretation of the contract,* and not before, the defendant will, in a State court, be enjoined from continuing to use the same otherwise than as agreed upon.

In such cases, the Federal jurisdiction does not attach, unless other elements—such as citizenship—intervene.

In other words,

When the original use is UNLAWFUL, the defendant is *prima facie* an infringer, and the jurisdiction attaches to prevent a violation of a right secured by United States laws. The action is against a *tort.*

But where the original use is LAWFUL, the defendant is *prima facie* not an infringer, and the Federal jurisdiction does not attach, as the rights of the parties do not rest on rights secured by statutes of the United States, but upon their own contract. The action is, therefore, *ex contractu,* and where rights are once lawful. their continuance can only be enjoined upon proof of the breach of some agreement.

M. D. CONNOLLY,
WM. HENRY RAWLE,
For Appellants.

June 2 79 Rec'd

In the Supreme Court of the United States:

HARTELL AND LETCHWORTH, *Appellants.*	October Ses.
vs.	1878.
B. C. TILGHMAN, *Appellee.*	No. 172.

TO THE HONORABLE, THE JUDGES OF THE SUPREME COURT OF THE UNITED STATES.

B. C. Tilghman urgently prays the Court to order a re-argument in the above case, and in support of his prayer respectfully represents—

That of the seven members of the Court who heard the argument, three were of the opinion that the judgment of the Court below should be affirmed.

Further your petitioner submits, that he has reason to suppose, from what appears in the opinion rendered as that of the majority of the Court, that their decision was founded on a misapprehension of the *conceded facts* of the case.

Your petitioner has never conceded, nor have any of the witnesses called in his behalf admitted, that the appellants worked the process under a license, express or implied, from himself or his agents. The agreement referred to in the appellee's brief, and which, by ingenious citations coupled with still more ingenious omissions, is made to appear in the supplemental brief of the appellants, an agreement as to the operation of the process, was in fact but an undertaking on the part of the appellee to do certain things, viz:

To erect and put in *satisfactory order* three sets of machinery suited for the application of the sand-blast process to certain specified purposes.

The appellants themselves admit that these things were to be done as a condition precedent of their becoming licensees of your orator; and your petitioner respectfully urges that the said agreement should not be interpreted to be a license or an agreement in the nature of a license, but as a mere agreement as to the licensing of appellants at some future time.

GEORGE HARDING,
for B. C. TILGHMAN, *Petitioner.*